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Sale of the century

The first faint suggestion that the Treasury has concluded that a smaller university system needs less plant, and therefore that the universities' recurrent grant may be reduced by the amount that they can raise from the disposal of these superfluous assets, may still be a cloud no larger than a man's hand. Indeed on a horizon already darkened by black thunder clouds of above-the-normal pay awards, early retirements, redundancies, and restructuring, this small cloud may not even be noticed. Yet in time it could grow into the blackest and most thunderous of them all.

For what might appear to the Treasury as simple good housekeeping would be seen by the universities as a definitive, even terminal, interpretation of the status and significance of the reductions that are being made in their income. A minimalist interpretation constructed of jumbled ideas about tightening one's belt or "snibbons" (Robbins in reverse), to which nunny have rather desperately clung despite the evidence, would no longer be credible. Instead a maximalist interpretation which accepted that the effect of present policies would be to produce a permanently and much reduced university system would cuckoo-like take its place.

In terms of distant planning horizons plant matters more than people. Indeed, if human considerations are

ignored, a case can be made out that the present forced reductions in staff and accompanying restructuring of universities may have a perversely beneficial effect because they may dislodge the creeping cosiness of a middle-aged system. Perhaps a few young people with fresh ideas may even find jobs amid the present confusion. But it is another thing entirely to abandon the dream of the 200-acre campus university. For to sell off land and buildings is to say that the new universities, or the technological universities, cannot hope to build up to their originally planned sizes - not, as the UGC has indicated in the short or medium term, but ever. A temporary recession would be transformed definitively into a permanent reduction.

Many perhaps will feel that this is to state the issue in terms much too stark and melodramatic terms. In a sense they may be right - for the moment. The Treasury's intention, after all, is simply to take every opportunity however slight to reduce the burden of public expenditure, not to reverse the Robbins expansion irreversibly. Farther cuts in the university grant by the front door look highly speculative, while back-door cuts, whether selling land or leaving the universities to absorb extra unanticipated costs appear much easier and so attractive.

Sentencing the SSRC

Nothing has been achieved by Sir Keith Joseph's review of the Social Science Research Council - except to prove what was anyway obvious to most observers, that a Secretary of State can fight a war of attrition but not a war of extermination against the SSRC. A great deal has been lost - a lot of public money has been wasted, talented officials in an overstretched department have had to bring much ingenuity and energy to the delicate task of persuading Sir Keith to accept the inevitable, Lord Rothschild has come close to getting himself crossed off the list of the great and the good, the academic bias earhorse has been flogged into a mosey.

Most important of all, a properly critical and dispassionate debate about how the SSRC should be organized, how it should regulate postgraduate study and how it should identify research priorities, has been entirely frustrated. Social scientists, whatever their views, and lay observers in the rest of the research community and among the consumers of social science research, whatever their doubts, have felt obliged to

show solidarity with the council in its hour of apparent peril.

So Sir Keith's clumsy intervention has achieved exactly the opposite effect to that for which it was designed. It has closed down the debate rather than opening it up. Instead of sustained discussion of the role of postgraduate study in a period when there are almost no jobs in social science research, or of whether research should be organized round theoretical preoccupations or practical problems, the debate has been reduced to the level of the vacuum, a vague recommendation that students should be freer to choose which institution to attend rather than be constrained by a strict quota system, or the silly, Sir Keith's apparent obsession with whether the SSRC should continue to have "science" in its title.

A second serious criticism must be of his determination to go on squeezing the budget of the SSRC, contrary to the advice of both Lord Rothschild and of the Advisory Board for the Research Councils. Again this can only send a chill through the council and inhibit it in taking new initiatives. Sir Keith's suggestion that the £6m to be cut from the SSRC will be spent on "new blood for research in the natural sciences" is either a flagrant example of divide and rule or of facile public relations, to fill out what would have been otherwise a shamefully insubstantial response to the Rothschild review.

However, an even more important question has been raised by Sir Keith's behaviour towards the SSRC. It concerns the integrity of research. Sir Keith has consistently scorned the formal advice he has received from the ABRCC on the question of the SSRC. Although it is going too far to suggest that the ABRCC should necessarily be in the same position as the University Grants Committee and expect its advice to be followed without question by the Government, it does have a right to expect that its advice will be given the substantial weight it deserves. The ABRCC, after all, is an expert and dispassionate body; Sir Keith Joseph in contrast has revealed himself, to everyone's sad satisfaction, as an inexperienced and passionate individual.

Strathclyde thinks tertiary

The Strathclyde Further Education Group's *Strategy for Post-Compulsory Education and Training* is scarcely original. It argues that more resources must be put into post-school education, including adult and community education and that there should be vocational preparation for the user jobs within a unified framework of education and training. These worthy views are expressed at every debate on Scottish education and indeed have been highlighted in the report of the Scottish Tertiary Council.

But while everyone else continues to talk, Strathclyde is now set to implement its scheme to plan post-school education in a coherent way. The scheme has a crucial advantage in having been endorsed last week by the Strathclyde regional council's

controlling Labour group and (it has also been approved by the Scottish Education Department and the Manpower Services Commission). The tertiary council report has been dug by various factions, including it seems tertiary council members, fighting their own corners so fiercely that they create stonewall.

Strathclyde's solution has admittedly been precipitated by increasing problems within the region: less than half the school pupils stay on after high level of unemployment, largely as a result of the decline of traditional industries. Unfortunately, although there is no doubt that the council will approve the strategy there will undoubtedly be problems in its implementation. Its recommendation that further education should be provided via a community basis, using both further education colleges and the local secondary schools, with groupings of schools and colleges working together to plan education for 16-18-year-olds, will force debate at a national level on different career and salary structures.

Scottish head teachers still see the 16-18-year-old age group as their province, and fear encroachment by the colleges. They must recognize that there has to be greater cooperation and an end to sectionalism if the ideal of further education and training for all is to be realized. It is regrettable that any cooperation is likely to result from the schools' own problems of falling rolls, rather than a desire to help young people and adults to benefit from further and continuing education.

Laurie Taylor



Yes, he came in. No need to bang around outside the door. Just sit down wherever you feel comfortable. It's all arranged in a nice semi-circle so we can all see each other while we're chatting.

Right. Everybody settled? Then let's make a little start. My name's Lapping, L A P P I N G. Professor Lapping, but don't let that worry you. As far as I'm concerned the emphasis in these first year seminars is on informality, on getting to know each other. So if you find that "professor" a bit of a handle, then no one here is going to take exception if you simply call me "Gordon". Allright?

First things first. What you've got to do is clear away any idea that this is going to be like school. Nothing could be further from the truth. From now on there'll be no teacher standing in front of you leading out facts for you to memorize and reproduce. None of that familiar classroom authority structure. Right?

Of course, at first, you're going to be a little nervous. One expects that. Faced with all the lengthy reading lists you're going to think to yourself, "Can I cope? How do I stand in relation to my fellow students? Those sort of worries. Can then assist. Take a chance. Test the water.

And alongside all these worries will be the perfectly understandable concerns about actually speaking in public, putting your own point of view. "Is it alright to argue, to pass a completely different point of view to that being proposed by your professor? Is it alright to interrupt, to contradict, to interject?" And the answer to all these questions is simple: yes, yes, yes.

What you have to remember is that putting across a point of view is a bit like any other skill, like riding a bicycle, playing contract bridge, you only get better if you practise. So you must regard every seminar as a chance to try yourself out in public - and if necessary make an ass of yourself. No one will think any the worse of you for it. Although, of course, we'll jot it down on your seminar report form just to keep track of your progress.

And now a special word to the women in the group. It's pretty clear from research that you're going to find it a bit more difficult than the men to make a useful contribution to the seminar. You see women are more likely to be interrupted than men, and what's more they're conditioned to regard any comments they do make as somehow less valuable than men's. Well, as far as I'm concerned, we'll have none of that in this group while I'm in charge. None at all. Is that clear?

One other thing: you'll see from the timetable that our little dialogue is timed for every week at 9.15am. Now unfortunately a few committee meetings do rather clash with that time, so could you make a little note that our next meeting will be on November 17, that's exactly three weeks today, which of course provides you with an excellent chance to get on with the essential reading.

Excuse me, sir.

Good. Excellent. An interruption. That's the style. But less of that formality, eh?

Well, Gordon.

Yes, go ahead. Speak up. Remember, dialogue's the name of the game.

Well, Gordon, it's just that we're already five minutes late for our next seminar.

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NAB fights over diplomas

by John O'Leary
 Controversial proposals to switch the emphasis of public sector high education from degree courses to two-year diploma work produced a simmering row in the National Advisory Board this week.

A lengthy and often heated meeting of NAB's committee, held in the House of Commons and chaired by Mr William Waldegrave, Under Secretary for Higher Education, made no decision on a paper containing the proposals as part of a future strategy to deal with excess student demand and continuing financial stringency.

The paper is to be discussed by the local authority associations and brought back to a subsequent meeting of the committee. But it has already prompted criticism from some committee members and others that its recommendations would lead to the downgrading of polytechnics and colleges.

In the paper, the NAB secretariat argues that the replacement of up to a third of existing degrees by two-year diplomas, producing a more vocational thrust to the public sector, may be the only way to provide places for the number of qualified applicants likely in the late 1980's. The alternative given existing spending plans, would be to deprive about 8,000 potential students per year of higher education.

The continuation of the existing system, which saw polytechnics and colleges increase new enrolments by 13 per cent last year, would require spending cuts of more than 20 per cent if numbers were left unchecked, it is claimed. This is thought not to be feasible for the system generally.

Controls on student recruitment would be necessary if the introduction of more two-year courses, which would encourage more mature entrants and more home-based students, were rejected.

The paper also favours increasing the proportion of part-time courses. The committee, at its meeting on Tuesday, approved a recommendation from the board to provide a greater incentive in this year's Post distribution for the expansion of part-time work.

New diplomas would probably be concentrated in the colleges of higher education, possibly creating a sector akin to American community colleges. Degree work would be concentrated in a smaller number of institutions, although there would still be a mixture of the two types of course in the larger colleges and polytechnics.



Lord Swann and Lord Stewart of Fitham leap off the edge, but all in a good cause. The former vice-chancellor of Edinburgh University, and his companion were taking part in a 15-hour fund raising "musithon" last week for the Royal College of Music centenary appeal.

The college recruited 10 harons (and baronesses) as part of its recruitment of the 12 days of Christmas theme, and each had to "leap" to approval from the audience. Lord Swann shared first prize. The college raised more than £12,000 towards a £4m appeal to pay for building improvements, new student accommodation, and scholarships. In all more than £1m has been raised with a programme including a gala at the Albert Hall, and a charity show of the musical *Cats* on Broadway.

Birley to head the Ulster polyversity

by Karen Gold
 Months of wrangling over the appointment of a vice-chancellor for Ulster's proposed "polyversity" ended this week when Mr Derek Birley, rector of Ulster Polytechnic, was given the post.

Mr Birley will be seconded full time to plan the structure of the institution before the steering group reaches decisions on its next month. Staff representatives from both existing institutions will take part in these talks, although the National Association of Teachers in Further and Higher Education condemned the manner of the appointment as "the worst possible start".

The secondment, recommended by Northern Ireland's education minister, Mr Nicholas Scott, was welcomed by the Association of University Teachers at the NUU, who had opposed the internal appointment before open competition for the vice-chancellor's post. It was a concession from the Government to ensure Mr Birley would not have a veto over the steering group, an AIT spokesman said.

But the NUU's students have voted to reserve the right not to cooperate with Mr Birley.

Mr Birley's own plans for the institution have already caused controversy: staff at NUU claim a paper he drew up for the steering group creates a highly bureaucratic structure and discriminates against the university.

The confidential paper states that the new institution's objectives "are to be very similar to those of the polytechnic", and proposes that its management structure reflect this: "The use of the word 'merger' clouds the issue" it says; "the polytechnic is over three times the size of NUU and is capable, on its own, of

Rival 'new blood' plans drawn up

by Paul Flather
 Two rival plans to create a series of "new blood" fellowships in universities have been submitted to ministers by the University Grants Committee and the Advisory Board for the Research Councils.

It now seems that a battle is being fought inside the Department of Education and Science and the Treasury to find extra funds to provide few jobs for young academics at a time of severe cuts.

In its advice to the Government, made public for the first time since it was set up in 1972, the ABRCC puts forward a three-year £20m scheme and appeals for an increase in the science budget to help appoint young academics.

The council says: "If higher education and research is not to ossify they need a continued flow of new blood." It recommends a recruitment rate of not less than 170 a year to replace natural scientists aged 35 or less, which would cost £20m.

It agrees there is no "rigorous" method of estimating the shortfall of young academics, and by using UGC data it estimates that the shortfall could reach 1,100 over the next five years.

The ABRCC wants extra funds for the research councils to allocate directly to university departments. A rival scheme involves channelling funds via the UGC to individual universities for distribution. A third option would involve the Royal Society establishing new fellowships in universities.

Agricultural research faces cut

Space science and information technology will profit at the expense of agricultural research if proposals for next year's science budget are approved by the Department of Education and Science.

The secretary of the Agricultural Research Council, Dr Ralph Riley, objected so strongly to the Advisory Board for the Research Councils' recommendations that he refused to be associated with the ABRCC's new report.

The merger was not happening too fast, Mr Riley told the House of Commons select committee for education, science and the arts which is taking evidence in Northern Ireland, and the polyversity would have a partial entry in UCCA next spring. Its resources were adequate and research would be essential to it.

He based his model on an American state university, with a substantial commitment to continuing education and part-time study. The ending of the binary system in this part of the world to my mind will be a great advance in itself.

This year the ABRCC's report, published for the first time, says the SERC should start to expand again to cater for important programmes in information technology, biotechnology and space research.

As the total science budget has declined slightly, the extra money will have to come from the other research councils. The ABRCC recommends that the Medical Research Council's present budget be maintained. The ARC and to a lesser extent the Natural Environment Research Council, should be cut to balance the book, it says.

The ARC cuts would begin to bite in 1984-85, and by 1985-86, the council would receive £46.8m instead of the £50.4m it would expect if level funding were maintained.

The ARC has taken a stand against these proposals. In an annex to the ABRCC report the agricultural council says the cuts would mean closing of some of its institutes and 300 redundancies, including 200 scientists.

The secretary of the ARC, Dr Ralph Riley, said this week that these reductions would be inevitable if the budget proposals went ahead. The council would try to reduce the adverse effects on support for university research.

Dr Riley, who as head of the research council is automatically an ABRCC member, added that the implications were so serious he felt he had to dissociate himself from the report.

The ABRCC's report will now be considered in the current public expenditure survey, but no decision will be taken until the survey is completed. At the same time the ABRCC put in a strong plea for an increase in the total science budget, which would ease the Agricultural Research Council's problems.

Another saving grace for the ARC could lie in allocations to the Social Science Research Council. The ABRCC recommends a modest increase in funds for the SSRC next year, from £20.9m in 1982-83 to £23.3m in 1983-84.

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MPs set for teacher training battle

by Patricia Santinelli

Opposition parties in the House of Commons have promised a rough ride to the Government's proposed teacher training cuts, which are due to be announced next week.

A statement from Mr Philip Whithead, Labour's spokesman on higher education, promised: "We will do everything we can in Parliament to see that the question of provision is re-examined in the light of the real needs of the 16-19 age group and the potential of the institutions for initial and in-service training."

Mr Alan Beith, the Liberal education spokesman, who visited one of the threatened colleges, Cardinal Newman, while campaigning in this week's Northfield by-election, also promised to keep up pressure for the cuts to be modified.

The association registered as an independent trade union, has written to Mr William Wedderburn, under secretary of state for higher education, saying it is dismissed at the proposed closures of Bishop Grosseteste and Newman colleges. Both are particularly well placed to respond to the increased need for well qualified primary teachers, it says.

The association also points out that as monotechnic institutions both colleges have an opportunity to help students relate their academic work to teaching in primary schools.

Meanwhile the Council for National Academic Awards is examining how quickly colleges and polytechnics will be able to alter their provision of secondary teacher training courses as a result of cut-backs in the secondary BED and

Commons to hold grants debate

by David Jobbins

Government business managers are embarrassed over a slip-up which means the 4 per cent grants increase for 1982-83 is likely to be debated on the floor of the Commons after all.

"There are a few fleas flying," the Government whip's office in the Commons admitted after a technical motion noting that the regulations had been discussed in standing committee by six votes to four.

Opposition parties combined to attack the Government for subjecting students to a form of incomes policy and then pressed home the point in the division, when it was apparent they were in a majority. Afterwards Government business managers said that some members of the committee were absent on the select committee visit to Northern Ireland and it had been judged wrong to bring them back for the vote, but it was clear this did not account for all the absences.

Pressure on ministers to make time for a debate came from Liberal spokesman Mr Alan Beith, Labour higher education shadow minister Mr Philip Whithead and eventually Labour leader Michael Foot.

One of the major worries in the public sector is whether universities can be controlled in a similar way, or whether the exercise will be strictly limited to colleges and polytechnics. University vice chancellors were due this week to respond to the University Grants Committee both on their quota of teacher training places and the subject breakdown within their total allocation.

The universities exercise in the breakdown of subjects which emerged at a meeting of all the departments of education showed that they had underbid in maths, English and physical education and overbid in science and history.

One solution to overbidding in science, is to try to persuade biologists to train for primary instead of secondary work, thus helping the shift towards the primary sector and increasing its science teachers.

The setting up of a working party to examine the future of the pge was agreed by the Council of National Academic Awards last week.

The working party will operate on similar lines to one established last year to look into the BED and its chairman will be Mr Ian Kane, chairman of the CNAAs postgraduate teacher training board.

Waldegrave about being attracted to loans after the "enlightened" Scandinavian models, warning that the expense would be out of line with Government assumptions.

The other "open market" road would lead to discrimination between courses, occupations and disciplines. But Mr Waldegrave argued that it was possible to design a satisfactory loans system and it was "provisional" of a sort unusual on the Left.

He argued the gap between the 4 per cent and the level of inflation was narrowing "not by accident but as a result of the Government's policies."

The upward for London students had risen by 6 per cent in real terms, although the value outside London had fallen by 3.7 per cent, and it had been possible for the Government to make some improvements.

"At the moment the graduate population is still the best treated of the age group," he said.

"The home student is better off than the youngster living at home on supplementary benefit, and the home student has spent on him considerable public resources on the maintenance of his institution and is being provided with a very greatly enhanced life expectancy of earnings," added Mr Waldegrave.

Opposition parties are likely to try to substitute a higher figure for the 4 per cent in the regulations.

In the committee debate Social Democratic Party spokesman Mr Tom McNally said that even the vice chancellors had warned the Government that an increase of just 4 per cent would cause hardship, and accused ministers of rejecting the concept of a student wage but wanting students to accept a wages policy.

He claimed that ministers were seeking to introduce loans by the back door when undergraduates were facing unemployment. Loans would deter poorer and working-class students who may be unwilling to get into debt.

"Is it an attempt to create a demand for loans from students themselves, that they are so hard up they are going to start clamouring for a loan system?" he asked.

Mr Whithead reminded the committee that Education Secretary Sir Keith Joseph had recommended students should "stiff" to supplement their grants.

"Remarks about stinting suggest a curious insensitivity to the people at whom they are directed. It is easier to stint on a slice of Bovis than a slice of Hovis," he said.

He cautioned the under-secretary for higher education Mr William Waldegrave about being attracted to loans after the "enlightened" Scandinavian models, warning that the expense would be out of line with Government assumptions.

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Flat-rate gains ground in Natfhe revolt

by David Jobbins

College lecturers have all but swept aside their leaders' advice and are pressing for a pay formula which would allow salaries to make up much of the shortfall caused by two years of incomes policy through cash limits.

The extreme Left's flat-rate strategy has received support from just three of the 14 regions of the National Association of Teachers in Further and Higher Education, a further eight have proposed a percentage increase combined with a lump sum element.

Union leaders were playing down what appears to be a substantial grass roots revolt, saying that it reflected developments since the executives' recommendations were drawn up nearly three months ago, and that it displayed realism.

But it was clear that many members of the executive regard the claim which is now likely to emerge after a special conference as potentially unrealistic.

The executive recommended that, in line with the prevailing TUC thinking, the main plank of the claim should be the maintenance of living standards over the 12 months to April 1983. It rejected a flat rate as unlikely to unite the 74,000 membership because of its extra benefit to the lowest paid, and cautioned against seeking restoration of the Clegg relativity award levels - which would need a 19 per cent increase - because of its magnitude.

But although Treasury ministers now predict that inflation will fall to 6.5 per cent by the end of the year, and 5 per cent by the spring, the salaries policy to be endorsed by the December conference is likely to be

far in excess of the 3½ per cent cash limit set by the Government.

The lump-sum element, where it has been specified by regions in their amendments to the executive policy, is far larger than the £150 awarded as part of this year's settlement. East Midlands is calling for £250 and Outer London for £400 to restore living standards.

Yorkshire and Humberside has suggested that the £x component of the £x plus y per cent formula should be used to restore Clegg, and Western that it should be a step towards restoration.

According to Department of Education and Science figures, a 5 per cent increase would mean the loss of 600 jobs in advanced further education alone, most by compulsory redundancy, in addition to the 2,000 jobs already scheduled to go by 1983-84. The figures assume that

University Press: We can't go on

by Olga Wojtas

Scottish Correspondent

Edinburgh University Press has warned that it cannot continue to work under cash limits imposed by the university.

A statement from the press committee says it would be preferable for the university to axe it completely "than to make it the vehicle of tarnished and inaccurate work."

The university court has rejected the committee's two other proposals to reduce the press's expenditure and has asked it to consider other options.

The committee says it faced a similar crisis after being funded on a cash limits system six years ago when "what the court hoped would be a shorn lamb was more like a stranded whale".

Then and now, it says, the press was obliged to find money for wages "determined by the prevailing university structures, not by the conditions of the publishing trade". It calls for a return to the system implemented in 1976 whereby the court took responsibility for the press's wage bill.

Its second proposal, favoured by the university's resources committee, is to contract out its sales promotion to Faber and Faber, and wholesaling and distribution to Manchester University Press. This would save £26,000, but would also mean job losses "through enforced retirement, redeployment or other expedient".

Dr John Burnett, Edinburgh's Principal, said that although the committee's proposals had been accepted, the court saw EUP as performing an important and vital function. "It is an extra arm to the academic effort of the university", he said.

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A statement from the press committee says it would be preferable for the university to axe it completely "than to make it the vehicle of tarnished and inaccurate work."

Aston stalls on redundancy vote

by David Jobbins

Aston University has deferred a decision on the first mainstream academic redundancies in the face of an implied legal threat from the lecturers' union.

Instead it will conduct a postal ballot of its council on the question of including compulsory redundancy within the armoury needed to achieve its budget cuts.

The official reason given was that after 2½ hours' debate it was felt necessary for people to be given time to reflect before voting on such a contentious issue.

But the Association of University Teachers claimed its action in raising the spectre of legal action against members of council who voted for compulsory redundancies was at the heart of its postponement.

The council received a letter from AUT general secretary Mr Laurie Sapper pointing out its possible legal liability in the event of declaration of redundancies, and it was suggested elsewhere that the names would be taken of council members voting for redundancies.

The personnel officer at Aston, which has been at the forefront of the redundancy battle, is a brother of Mr Norman Tebbit, Secretary of State for Employment. As has been involved in drawing up schemes to achieve the run-down in personnel implied by the university's budget cut. But even under the university's and the University Grants Committee's schemes Aston faces a deficit of £300,000 this year, £1.4 million in 1983-84 and £2.3 million the following year.

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Classics head resigns over staff cuts

by Felicity Jones

The management at North East London Polytechnic has been forced to close the building which houses its social sciences department because of the discovery of asbestos in the roof.

It was found after severe flooding in the Livingstone House site, a converted cigarette factory, two weeks ago prompted a walk-out by staff and students from the four-floor building.

The building has been plagued by flooding through the roof for 12 years. A similar flood last spring closed the library, which has been out of use ever since.

The staff students and staff voted last week to vacate the building until repairs are given. They were concerned about the effect of dampness on the electrical wiring and the health of those using the building on a regular basis.

It had been hoped that, after repairs, the building, which accommodates the human sciences, sociology, health service, social work courses and cultural studies, would be reopened on Monday. But the polytechnic closed it down again when asbestos was found in the roof while the repairs were being carried out.

The Association of Scientific, Technical and Managerial Staffs has just launched an asbestos campaign and rejected the view that some asbestos products, including asbestos cement, are safe. It points to evidence of mesothelioma, a fatal tumour of the lung, contracted by those whose jobs involved sawing or cutting this sort of cement asbestos.

Students are very concerned about the disruption being caused to classes. M Daphne Liddle, publications editor, said that if it took the use of the building if it took the suggested two months to repair.

Some students have had no classes yet this term and no one has had access to the library, she said. "This means that students have been unable to get hold of specialist books relevant to their courses."

Staff are also worried about the harm caused to teaching. One member of staff said that some classes were having to be held in corridors and there was a fear that students would start dropping out of courses altogether.

Youth review group urges compulsory social education

by David Jobbins

Legislation to make local authorities provide social education for all young people up to the age 21 is called for in the Youth Service Review report published this week.

The report is by a youth review group set up 18 months ago under the chairmanship of Mr Alan Thompson, former deputy secretary at the Department of Education and Science.

It stresses that the youth service has only partly met the needs of young people by failing to recognize that social education is its prime purpose and by not responding quickly enough to new and changing needs, and working out coherent strategies.

The report proposes that i.e.o.s should retain their current wide powers but that new duties should be imposed on them. This would give them the responsibility for coordinating youth affairs within and outside their areas.

They should also be given the statutory duty of creating machinery to ensure regular and effective communication and consultation with voluntary organizations.

In addition authorities and voluntary bodies in partnership should ensure a more equitable geographical spread of youth service provision where it is needed.

At national level the report recommends that a DES minister should have responsibility for coordinating the relevant aspects of the DES work and that of other departments: it

As support for the minister, it recommends the appointment of an advisory council for youth affairs. It would have a distinct public identity but be serviced by the DES.

The report says it has been impossible to determine whether extra cash should be made available, although it estimates that if value of nil facilities used in youth work are taken into account, current resources amount to £1,000m a year.

Fears for small departments

The Natural Environment Research Council fears some small university departments vital to its work may disappear.

The council's chairman, Sir Hermann Bondi, said this week that subjects such as oceanography and forestry were a cause for real concern.

Introducing the council's 1981-2 annual report, he said that small fields like these could suffer heavily from a few individual decisions.

"University autonomy is a very good thing for starting things up, and a very bad thing for closing things down," he said.

In the report, Sir Hermann says that if several departments should close in one of these fields, it could severely weaken the country's research capability. The council has offered to assist in the relocation of departments (by funding the transfer of a professorship, for example) but says it is up to the institutions to take the initiative.

NERC officials will collate information about the disciplines of particular concern, and present the results to the University Grants Committee, but they have no other powers to intervene.

The report also points to the increasing pressure on the research councils as other sources of funds dry up. Although the NERC had roughly the same amount to allocate in 1981-2 as in previous years, the percentage of successful grant applications dropped to 31 per cent, compared with 40 per cent in 1978-80.

Sir Hermann stressed that the council made no provision for any shortfall in the universities' side of the dual support system for research in payment of laboratory overheads. It is clear that this places the grant reviewers in a dilemma, as some grants are being refused not because the proposed research is unsound but because the department they come from has poor facilities. However these departments may be the ones which are in danger of closure.

The report also calls attention to problems in the application of the Rothschild custom-contractor principle. Sir Hermann writes that he believes this method of funding applied research is fundamentally right. But there can be difficulties over appropriate support for "strategic" research, over indications by the customer, usually a government department, of likely needs, and recognition that the intellectual as well as financial health of the contractor must be sustained.

News in brief

'Make validation public' plea

Validating bodies' reports on institutions should be made public in order to assist the work of the National Advisory Body, Mr Neil Merritt, director of Ealing College and chairman of the college principals' group, the Standing Conference, has urged.

Helpful gift

An anonymous gift enabled the City of London Polytechnic to build its first purpose-built halls of residence, the Sir John Cass Hall which was opened last week by the Bishop of London Graham Leonard.

Campus accident

A Henot-Watt University student has died in a freak accident pleaded in the heart by a splinter of glass from a shattered door. Mr Ken McKernie, a 19-year-old maths student, was killed after pushing a plate glass door at the main entrance to a refectory building.

ILEA review to go ahead

The first major review for 10 years of higher education in London is to go ahead at last, a policy committee of the Inner London Education Authority agreed last week.

The review had been planned in principle before but had been postponed when key members of the ILEA's education staff were lost to the National Advisory Body for Local Authority Higher Education.

All polytechnics, art colleges and colleges of further education will be reviewed to try to assess their success in meeting local priorities.

It will be carried out by authority officers and the inspectorate in consultation with unions and community groups.

The chairman of the further and higher education committee, Mr Neil Merritt, said they were not only looking at ways in which to rationalize courses but would also consider the role of the polytechnics in inner London.

"We do not accept that polytechnics merely provide a national service. They also provide for the local community and we will be taking this opportunity to see where they are meeting that need and to see where it can be extended," Mr Fletcher said.

Social science research loses out to natural sciences

The Advisory Board for the Research Councils confirmed this week that it will follow ministerial demands and transfer £6m of its proposed budgets until 1985-86 from social science research to supporting "new blood" in the natural sciences.

Sir Alec Merrison, chairman of the ABRCC, dismissed suggestions that Sir Keith Joseph, the Secretary of State for Education, may have overstepped the mark in ignoring ABRCC advice and ordering a second cut in the budget of the Social Science Research Council in a year.

"We may not like Sir Keith's decision," he said, "but it is my view that all the way through he has been acting without any impropriety. After all it is the Secretary of State who is ultimately responsible to parliament."

When he meets the council at a special meeting next week Sir Keith will explain his views on social research, the reasons for the £6m cut out of a £73.3m budget proposed over three years, as well as why he wants the word science dropped from the SSRC title.

Researchers' pension policy 'unfair'

A London medical researcher has accused the Universities Superannuation Scheme of unjustly treating workers on short-term contracts.

Dr Anthony Durban, of St George's Hospital Medical School believes that using employers' contributions for general USS funds if an employee leaves the scheme in less than five years is unfair to young researchers. It also misuses money which often comes from charities, he claims.

Researchers like Dr Durban, who leave after a three-year contract and do not move to another institution, can receive a pension based on the 6 per cent employee's contribution over that time. Or they can opt to revert to the state pension scheme, and receive a lump sum to cover excess contributions.

But in either case, the further 64 per cent of salary paid into the fund by the employer is retained by the USS.

Classics head resigns over staff cuts

The head of Classics at Aberdeen University has resigned over cuts in his department which he says will prevent a "proper" degree course being taught.

The department's size is to be cut from seven to four, and Professor John Rist's proposal for four full-time and two part-time staff has been rejected.

After the university's court accepted his resignation, the principal, Professor George McNicol, claimed Professor Rist had made "unprecedented and unacceptable demands" by nominating specific people for the part-time posts. Professor Rist had also rejected offers of assistance from appropriately qualified staff in other departments, he claimed, but he would not reveal which subjects were involved.

Professor Rist was appointed two years ago in what was seen as a clear commitment to revitalise classics at Aberdeen. He had taught for 20 years in North America where there had been an upsurge in general classics programmes as opposed to traditional language-based courses. It is understood that Professor Rist will return there following his departure next September.

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This coin showing how things might have been at Edinburgh University has been unearthed by a Wirral garbier, Mr W. T. Winderley, who made the find, has loaned the "Edinburgh Halfpenny" dated 1797 to the university.

Fears for small departments

The Natural Environment Research Council fears some small university departments vital to its work may disappear.

The council's chairman, Sir Hermann Bondi, said this week that subjects such as oceanography and forestry were a cause for real concern.

Introducing the council's 1981-2 annual report, he said that small fields like these could suffer heavily from a few individual decisions.

"University autonomy is a very good thing for starting things up, and a very bad thing for closing things down," he said.

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Engineering worst hit by UGC cuts

by Jon Turney

Science Correspondent
Engineering departments are suffering most from staff losses following the University Grants Committee cuts, according to Dr Colin Davidson of Heriot-Watt University.

Speaking to the Institution of Electrical Engineers last week, he said that the projected fall of 15 per cent in UGC expenditure in 1983-84 compared with 1981-2 could only be met by reducing the number of staff. And young engineering lecturers, in particular, often found industrial jobs attractive.

Dr Davidson, giving his inaugural address as chairman of the IEE's Science, Education and Technology Division, added that engineering departments would also be hit hard by early retirement. There were many more older staff in engineering than in other disciplines.

Seal of approval for poly

by Felicity Jones

Hatfield Polytechnic has been commended by the Council for National Academic Awards in its review of the institution.

The CNA's visit took place last November after 27 staff had been lost through early retirement and the polytechnic was coping with a 10 per cent cut in resources thanks to a lower allocation from the pool and the loss of its rate support grant from the local authority.

It was the polytechnic's ability to handle these cuts in resources, rather than the quality of the courses, which concerned the visiting party. It found that the polytechnic had responded rapidly and effectively.

The tactics used by the polytechnic included increasing class sizes to a staff-student ratio of over 19:1 and not replacing staff.

The visiting party warned, however, that in future if there were any difficulties over resources the polytechnic would be faced with difficult decisions. This finding has particular relevance in the light of the National Advisory Body's rationalization exercise.

The one reservation in this CNA report was whether the polytechnic was equipped to make such decisions. In particular its data base and set of criteria for establishing priorities were criticized.

Dr John Hlton, the polytechnic's director, said steps had been taken immediately to improve its decision-making systems and he was confident that it would be in a stronger position to respond to NAB.

"With our more developed data base it should be not too difficult to produce the figures required by NAB although the problem will still be the projection for 1984-85," he said.

The polytechnic has taken to deal with criticism about student accommodation with the erection of portable cabins on the campus.

Art conversion course founders

Glasgow School of Art has dropped scheme to convert art diplomas into art degrees because of lack of funds. The college last year ran a six-month pilot conversion programme for diploma holders, which was successful. The Scottish Education Department meeting the £8,000 cost.

Mr Michael Moulder, the school of art's registrar, said: "Unfortunately this year no additional funds are available to enable us to continue or extend the scheme."

The programme was launched on the suggestion of the Council for National Academic Awards to resolve a pay anomaly. After 1966, teachers with a diploma in art and design in England and Wales were able to exchange this for an honours degree, which entitled them to pay increments.

Practice should gain credit

by Paul Flather

Academics should start to think about giving "credit" for the way and extent new ideas are applied in practice, and not just for the discovery and research of such ideas.

This is the view of Sir Alan Muir Wood, an engineer, and chairman of a powerful new committee which reports directly to the Prime Minister and which is currently investigating ways to break down barriers to closer collaboration between industry and higher education.

The committee, as first reported in *The Times* (October 15), has been set up jointly by the Advisory Council for Applied Research and Development and the Advisory Board for the Research Councils and will conduct a "short, sharp, exercise" in traditional ACARD style. A report is expected in early spring.

Sir Alan told a Whitehall press briefing last week that he already knew of the appointment of one professor where the university had taken account of the individual's enormous experience and contact with industry.

Sir Alan said he thought there were "some fairly simple things" that could be done to improve links between the two sides. "If one could see credit being given in the

academy world for the application of technology, for example, it would help greatly."

The committee will look at mechanisms for encouraging collaboration, including ideas such as teaching companies and joint industry-university appointments. But it could also discuss a system of awards for "applying ideas", perhaps financial and perhaps academic.

Sir Alan agreed that the subject had been much discussed over the years but he believed a new climate of opinion had emerged with industry needing more research to overcome its problems and educational institutions needing cash to ease its problems, and the committee hoped to capitalize on this.

He hinted that the Government may be ready to provide new money to back any specific recommendations from the committee. "I cannot see how there is any room for any redistribution of funds at present."

The strong interest of Mrs Thatcher in this subject will clearly help the committee.

The Government is already beginning to promote the application of university research as a distinct end. The Department of Industry is to announce the winners of its new

awards for academic-industry collaboration next week.

The British Technology Group ran an academic venture and enterprise awards. A £20,000 award was given to a team of electrical engineers at Salford University this year, providing a "great morale boost" according to the vice-chancellor, Professor John Ashworth.

Salford has already replied to a questionnaire sent out by the committee pointing out that collaboration with industry will ultimately only improve when universities adopt proper "managerial structures". Professor Ashworth said he agreed wholeheartedly with Sir Alan on the need for new credit for applied work.

He told the National Council for Educational Standards in London: "It is really time we put our own house in order." Undergraduates have continually complained about the quality of their teaching but we still have no checks on quality."

Some universities and polytechnics did provide courses for new appointees, he said, but these were usually very short and there was no follow-up. "We need regular and compulsory in-service training for all involved in teaching," Professor Cox added.

Referring to the recent report from Her Majesty's Inspectors on new teachers, Professor Cox said his criticisms echoed what the Black Papers had said years ago. The failure of teacher training had long been a matter of common observation. We go on arguing about new examinations, "but the simplest things do not get done," he said. Amazingly, still the major problem in the training of teachers is that it is very poor.

Quality checks called for

by Owen Surridge

Quality checks should be made on lecturers in higher education who should undergo compulsory in-service training according to Professor Brian Cox of Manchester University.

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Industry links get stronger

The University of Durham has announced plans for a £3.2m centre for materials science and technology. The centre will bring together staff and facilities from the university's departments of physics, chemistry, geology and engineering, as well as from the Durham business school.

It represents the university's response to the need for stronger links with industry, and will have a clear research focus than the science parks which have been the product of similar initiatives by other higher education institutions.

The centre for materials science and technology will be housed in buildings constructed by English Industrial Estates on university land, and work will begin early next year. The university has also been guaranteed £150,000 from the Leverhulme Trust to pay the director's salary until the centre becomes self supporting.

Further funds for new scientific instruments will be raised from the university's one hundred and fiftieth anniversary appeal. When complete the centre should have a range of facilities unique in Europe, and Durham's vice-chancellor, Professor Fred Holliday, said this week, "we've got something here well worth selling."

The detailed proposals for the centre are the result of 18 months of discussion between university science departments and the business school, and 50 members of staff will participate in the work of the centre, as well as its own, new researchers.

The centre will have charitable status, and any profits will be used to augment the research facilities. The centre committee in the university hope the new facility will anticipate future industrial needs, and a number of companies in the north-east and further afield have already expressed interest in renting laboratory space.

It is expected that the Department of Industry and the Ministry of Defence will also take a close interest in the development of the centre.

MP withdraws resignation from NUS

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Ms Richardson, MP for Brinkley and a member of the party's national executive, originally decided to resign because she sensed a widening gulf between the NUS and the custodians of its public image.

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Parkes hopeful on new funds

by Ngairi Crequer

The University Grants Committee hopes to win its campaign to wrest more Government funds for recruiting new, young academics, Dr Edward Parkes, its chairman, said last week.

Dr Parkes, who was giving a centenary lecture at Westfield College, said in response to a question: "We are still in the midst of a bloody battle on this. But I think there is a better than even chance we will get additional funding for new blood, spread over the next 10 years, so we will be recruiting people from a year hence."

Earlier, he told the audience the early retirement programme was leading to non-academic and academic staff. Financial constraints would mean no significant recruitment of academics for 10 years; the implications for intellectual vigour were alarming.

Could the universities do more to help themselves, he asked? The American pattern of alumni support would not produce substantial returns, but commerce and industry might be able to help. The changing nature of the universities, responding to the demand for continuing education, would lead to a closer relationship here.

Digging for Bronze bodies

Archaeologists from Lancaster University have just completed a three-month excavation which uncovered a Bronze Age funeral monument containing the remains of two leading figures buried nearly 4,000 years ago.

Mr Adrian Oliver (right), director of the excavation, said that the monument was considerably larger than those found previously in western Britain. Builders had been brought several miles for its construction, indicating its importance to the local population.

The project was carried out with the aid of a grant from the Department of the Environment before the site was dug up to extract gravel. The monument, at Borwick, near Carnforth, was discovered by Lancaster staff four years ago.

Search for dental director is still on, says MRC

by Jon Turney
Science Correspondent
The Medical Research Council has responded to criticisms over the delay in a new appointment to the directorship of its dental unit in Bristol with an assurance that the search for a suitable candidate is still on.

Last week, Professor Declan Anderson, of Bristol, and Professor John Estoe, of Newcastle upon Tyne, made public their concern over the council's failure to find a successor for Professor Arthur Darling, who left the unit in July.

There have been three sets of interviews, over five years, but an MRC official emphasized that the final outcome was still open.

"The present exercise hasn't been going on for all that long," she said. The length of time taken should be seen as an indication of the council's wish to maintain the unit, rather than the opposite.

"Instead of sitting down after the first failure and saying - that's it, we'll close it down - we're trying very hard to identify someone for this unit," she said.

She declined to comment on the qualities of the rejected candidates or the attributes which would mark an applicant as suitable for the post. But it is clear the potential pool of candidates is small, and a number of researchers approached to consider applying for the job had no wish to leave their present positions.

Professor Darling, who was twice asked to delay his retirement from the unit, did not wish to comment on the choice of successor but is thought to favour an internal candidate.

Fewer men study social work

by Paul Flather

More women are now taking social work courses, reversing for the first time a general trend of the 1970s when the profession appeared to be shedding its "predominantly female" image.

Figures released by the Central Council for Education and Training in Social Work show that women still comprise the majority of new entrants to social work, but now one in three are men whereas five years ago two out of five were men.

Overall the figures show a marginal drop in the student intake for professional social work courses of 178 between 1980 and 1981 from 3,790 to 3,612, of which 1,246 (34 per cent) were men. In 1976 the proportion of men was 39.5 per cent, from a total student intake of 3,962, from a total student intake of 3,962.

Another worry for the training council is a huge decline in the number of students gaining secondments to take courses, which have fallen by 35 per cent between 1980 and 1981. Graduates usually gain state grants, non-graduates come on secondment.

The council believes the fall in secondments and traineeships, largely because employers are finding funds hard to come by, will undermine the Government's objective of increasing the amount and quality of care in the community.

Last year 1,778 students (54.9 per cent) had grants and 932 (28.6 per cent) were seconded. In spite of the fall in secondments, the overall fall was kept low because of increases in discretionary awards made by local authorities and the number of privately funded students.

Mr Tony Gardner, principal registrar for the CCETSW, warned that if secondments continued to fall and cuts continued in higher education the number of students taking postgraduate courses would be badly hit.

"As a training council we would be very worried if the balance of graduate and non-graduate students was badly distorted," he said. "We would want the intake to reflect the balance of society, and for social work to become predominantly female is also not ideal."

A major reason for the increasing proportion of women has been the fall in entrants to courses coming directly from employment. During the huge expansion in social work in the early 1970s a large number of entrants were field workers and senior officers who had never before been trained professionally, and most were men.

Mr Gardner said this backlog of "untrained" social workers was now largely over. A second reason was that more graduates were taking courses, and in general it was women who opt for social work at universities.

Data on Training, £1.50 from CCETSW, Derbyshire House, St Chnd's Street, London WC1.

Plea for the handicapped

All further education colleges should do more to help handicapped school leavers, the Greater London Association for the Disabled advocates in a report published this week.

The report, "Further School Leavers: The Value of Special Education in their Transition to the Adult World", is based on a three-year research study of further education and employment prospects for special school leavers.

GLAD says its study shows that further education gives vital support to handicapped school leavers in making the transition from special schools to the adult world and equips them to meet the demands of the labour market.

"Yet at present, although their need is arguably greatest, because of the patchy distribution of provision, handicapped youngsters' access to further education is largely a matter of luck," the report says.

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It says this is even more vital as rising unemployment among school leavers hits handicapped young people disproportionately. A survey of employers and employment services in south London showed for example that job prospects for educationally retarded school leavers were particularly bleak and there were serious barriers to their chances of finding work.

GLAD argues that this makes it even more necessary for central and local government to provide more education and training. It also wants more active intervention by careers officers, special school teachers and others on behalf of handicapped school-leavers to help them find jobs.

It added: "It is hoped that this project will establish the means through which these resources can be made available to a much wider cross section of the community and particularly to areas which traditionally have benefited least from public investment in higher or further education."

Strathclyde sets up community link

Strathclyde Regional Council and the Scottish Office have awarded a £60,000 grant for a further education unit to liaise with community groups.

Strathclyde is in the process of ratifying a policy document calling for a comprehensive further education system with further education colleges as the focus.

The grant to Glasgow College of Technology's sociology department will fund a full-time coordinator. A college student said the great range of education institutions were normally only available to people attending them.

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Police moved in to clear hundreds of anti-vivisection demonstrators who sat down in a busy road outside Bristol University during a protest march through the city last week. Forty-three protesters appeared before special courts the same evening on public order charges.

Overseas news

Dutch prepare for drastic cut backs

from Lionel Cohen

THE HAGUE
Five months ago, following a major cabinet crisis, 37-year-old Dr Wim Deetman became the third Dutch education minister to be appointed

month's inconclusive general election, Dr Deetman may soon be handing over his "caretaker" portfolio to yet another ministerial incumbent who will be faced with the task of "slimming-down" the entire higher education system.

Reversing the expansionary policies and expectations of the 1960s and 1970s has already proved a painful process for the university community. Yet, in some ways, the long-drawn-out battle over the plans of Dr Arie Pais, the former Education Minister, for shortening and modernizing university study-programmes - the so-called "two-phase reforms" - which finally came into force this year - has paved the way for the more drastic programme of general economy cuts now being introduced.

This year, the doors of the universities were barely open for the beginning of the new academic year before Dr Deetman announced the latest batch of economy measures. These included a 37 per cent rise in college, tutorial and registration fees.

plans for a compulsory cutback in student numbers for subjects where the demand for graduates was falling rapidly and, perhaps most significantly, a compulsory "step-by-step" efficiency plan which was to be brought into effect in stages over the next five years.

Under this "financial scheme-plan" a composite savings target of £60m in real terms must be achieved by the universities before the end of 1987. According to some estimates, this will mean a loss of 2500 staff posts coupled with sharp increases in the work-load.

However, Dr Deetman's argument - in essence a repeat of the philosophy of his predecessor, Dr Jos van Kamenade - is that this exercise is more than just a means of securing his department's share of Government economies. Rather, it tightens the coordination of university functions and allows cost-benefit analyses to be attempted. This also introduces the more widely-argued concept that the work and teaching programmes of the institutions need to be more directly related to the requirements of Dutch society.

This concept was most recently applied by the Dutch Science Research

Council's two-year-old policy of examining all applications for research funding, not only on the basis of their scientific merit, but also on the projects' economic and social value for the region and the country.

But no university department is likely to voluntarily admit that some or all of its research or teaching is superfluous although only a few years ago one well-known technological university was admitting to having more academic staff than students in one of its lesser-used specialist departments.

Dr Deetman has planned shrewdly to implement his five-year efficiency programme through the establishment of an eight-man coordinating work-group, drawn equally from the Academic Council and the university itself. The only university not to be involved is the newly-formed Dutch Open University. By the time the Dutch OU is operational in 1984 the first major departmental closures under the economy programme will be taking effect in the "conventional" universities, and the expectation is that the OU will then "take up the slack" and offer higher educational opportunities to the students who are shut out from conventional universities.

Protests close campus

from Crnig Charney

JOHANNESBURG
The University of the North closed last week, following the second outbreak of student protest there this year.

The closure of the black university east of Johannesburg was the result of a week-long boycott of classes, which followed the detention of two women students by security police. The detainees, Miss Benedictine Monama and Miss Makhosazano Nhlololo, are both members of the Azanian Students Organization, the national black students' union.

Student anger was provoked when it became known that two white members of the university staff aided members of the already banned Azanian Students Organization in their residence after it had been closed for the night, enabling police to pick up one of the students at 3am, while another pointed out the classroom where the other woman could be found the next morning. Students demanded the immediate dismissal or suspension of the lecturers concerned, backing their demand with a class boycott.

The rector, Professor P. Mokogong, disassociated himself from the actions of the two lecturers, and appointed a committee to look into their conduct. However, he said he had no power to take summary action against them, and set a deadline for a return to class of October 21. Rejecting the rector's call to end their protest, almost all the university's 3,000 students chose to go home. The university is due to remain closed until November 1, with final exams scheduled for November 10. If the women remain in custody, the chances of a peaceful reopening of the university appear to be slim.

Plans to dissolve Nairobi University

by David Jobbins

Nairobi University, which became a focal point in the failed August coup, will not reopen in its present form, Kenyan president Daniel Arap Moi, has said.

He told the university which, with Kenyatta University College, has been closed since August 1, must be dissolved before it can be reopened. "We want a new university which will be relevant to national-building requirements, with no prospect henceforth of being a source or instrument of destruction," he said to Nairobi.

A number of lecturers and students are awaiting trials for their part in the coup, and Mr Titus Adunsoy Oloo, chairman of the Students' Organization of Nairobi University, has been jailed for a maximum of 10 years on sedition charges.

Human rights organizations say that Mr Oloo was admitted to hospital after interrogation while being detained by police after the failure of the coup.

Many of the students are related to prominent people including Ministers and civil servants. NUSU was banned by the Government before the coup, and Mr Moi has accused some staff of teaching the "politics of subversion".

Split deepens between ministers

from Guy Neave

PARIS
The relationship between the minister of education, M. Alain Savary and M. Jean-Pierre Chevènement, minister of research and industry, took a further battering last week. The new flare-up involves the future of educational research and funding in France.

Last week, following a meeting of experts and practitioners at Rennes, M. Chevènement's hemispherical appetite stood once again revealed. Now, the minister for research and industry is to bid to take over responsibility for the whole strategy for educational research and development. This, effectively, would remove it from the minister of education and plant it firmly within the overall framework of science policy development.

It is not the first time that M. Savary has found his rival poaching on his preserves. In June last year, responsibility for the major research agency - the Centre National de Recherches Scientifique was filched from education.

The driving force behind M. Chevènement's boldness can be traced back to the national coup which took place earlier this year. There is a certain logic in bringing educational



Chevènement (left) and Savary: arguing over research funds

R and D policy - rather more fragmented than effective in France. Proposals to coordinate policy between the two ministers have met with stony refusal from M. Savary. This has not prevented certain sections of this troops from entertaining traitorous intentions, however. Already, the National Institute for Educational Research has expressed its unbecoming interest in M. Curraz proposals.

Among the latter, M. Curraz has called for priority to be given to long-term research, research on educational innovation strategies. This has fallen on ears only too willing to listen.

Accommodation crisis for Turks

from Bernard Kennedy

ANKARA
Nearly 4000 Turkish university students had a nasty surprise as they were making last minute preparations for the start of the new academic year. With only days to go before courses were due to begin, they learned that they were no longer to be accommodated in official hostels and would have to seek much more expensive lodgings.

The issue has become a cause célèbre. Some of the students involved say they may be forced to give up their studies. Homeless students complain that rich colleagues will be given places in the hostels while they themselves will have to find rent out of the £30 - £35 a month their parents can afford to send them.

The students blame the computer used this year to allocate hostel places. It appears that priority is now being given to new students rather than continuing ones. The facilities of the national Credit and Hostels Board are not sufficient to house the number of students who apply. This year there was particularly heavy pressure, for places because of the increase in the intake of fresh students to all universities and because of the setting aside of 5 per cent of

the beds for the sons and daughters of Turks working abroad.

A large proportion of Turkish students live with their parents, but this is not possible for the growing number who do not live close to university centres. This year, some 45,000 young people applied to the board for the 30,000 hostel places. The hostels offer a bed and a roof for a few pounds a month.

Credit and Hostels Board chairman Sahap Ar has promised that the capacity and qualities of the hostels will be improved and that the number of students benefiting from the modest loans provided by the board will be increased from 100,000 to 160,000. There are also moves to encourage citizens of university towns to take students as lodgers. But in view of a national housing shortage, and with the cost of renting private accommodation constantly on the increase, the prospects for those students still without a roof over their heads looks bleak. And it is said that the owners of private hostels are attempting to cash in on the situation.

Inquiries are starting to flow in from British teaching staff about the possibility of taking posts in Turkish universities. In a move to cash in on redundancies in British higher education,

Graduates assigned to jobs

Vietnam is to introduce new procedures to assign graduates from colleges and higher vocational training schools to the jobs where they are most needed. Beginning with the current academic year, the state planning commission will work with ministries and government departments to arrange for the distribution of graduates and the establishment of staff recruitment levels.

Under the new directives issued by the Council of Ministers, the ministry of higher and vocational education will be obliged to "adjust" the current curricula of colleges and vocational schools, so as to "improve the quality of students". Long-term guidelines have been established for improving the higher and vocational educational network special stress on postgraduate research which, during the past five years, has grown rapidly, particularly in science. Since 1978 the number of postgraduate training establishments has risen from 2 to 42 with 16 universities and 26 scientific institutes offering courses in the natural and social sciences, including agriculture, fishery studies, forestry, industry, medicine, pedagogy and economic management. According to the new directives, "outstanding" students will be directed to these

institutions on a basis of national priorities. For the time being, research projects will concentrate on the immediately practical. The chairman of the council of ministers, Pham Van Dong stressed that with Vietnam's "as yet small forces and limited abilities", they must begin with "modest, practical things". Whether more theoretical and long-term research will be upgraded in the foreseeable future so far remains unclear. One pointer will be the selection of the new state prize commission which was recently established to award annual prizes in various categories including science and technology, social sciences, literature and the arts, and education, public health, sports and physical education. The tone of numerous recent official pronouncements suggests, however, that relevance to the national economy will be a major criterion for any awards.

One group of graduates will, however, remain outside the new procedures - those who have been studying at foreign universities subjects which are not immediately relevant to the Vietnamese economy. These will, for the moment, be allowed to remain abroad and pursue further studies there.

North American news

Independence under threat, report says

from Deborah Kasoff

WASHINGTON
The independence of the nation's colleges and universities is threatened by state agencies and the institutions' accrediting agencies, says a report by the Carnegie Foundation for the Advancement of Teaching.

"The increasing role of outside agencies in campus matters is wearing down internal governance structures," the report says. "As leadership is diminished, power and initiative flow even more rapidly to bureaucracies outside."

"This destructive cycle must be ended. The governance initiative must be returned where it belongs, to the campus itself."

The report, prepared under the direction of Dr Ernest Loyer, president of the Carnegie Foundation and former US commissioner of education, said that 51 specialized accrediting groups are currently recognized by the department of education and that their intervention in university decision-making is increasing.

Examples of conditions for accreditation cited in the report include those of the American Veterinary Association which wants to review, before adoption by a school, any contemplated changes in its administration, organization, faculty, curriculum or objectives, and the Accrediting Bureau of Health Education Schools requirement that accredited schools furnish names and qualifications of all instructors and notify the agency of any changes in faculty within 30 days.

Other accrediting agencies tell universities what buildings must be constructed, dictate student-faculty ratios or order new courses as conditions for accreditation, according to the report. It also states that 21 of the agencies have persuaded state governments that graduation from an accredited programme is necessary to obtain occupational licensing.

"Through this process, specialized associations, indirectly at least, also control key decisions on the campus," the report says.

"If specialized accreditation is used to protect the turf of a specific department against the larger interests of the institution, the campus becomes a holding company for special interests, receiving from each professional team its demands."

Academic decisions are also being influenced by state budget considerations, with state intervention increasing as their financial support increases, the report says.

The state legislatures in Arizona and Nevada dictate the student-faculty ratios at their state universities. New York screens all business trips taken by state university faculty members, and Pennsylvania requires state approval for all state university expenditures over \$1,000, according to the report. Other states regulate university consulting fees and honoraria for faculty members or supervise tuition, financial aid and federal grants to their universities.

"There used to be widespread concern about federal intervention in university life, but the ground rules have changed dramatically in the last two years," Dr Loyer said. "State agencies and the various independent accrediting bodies are now much more interventionist than the federal government."

The Carnegie report urges universities to reassert their right to govern themselves and makes a series of recommendations to trustees, administrators, faculty members, accrediting agencies and the federal and state governments.

The report recommends that standards for specialized accreditation focus on academic outcomes rather than on procedures, and says that regional accreditation could be strengthened through better defined standards and a national "court of last resort".

"College administration has changed qualitatively in the last decade... we're not seeing leadership and imagination because time, energy and even vision are diminished and consumed by external demands," said Dr Loyer, who warned that if colleges do not take the necessary steps to decrease outside intervention, "higher education will lose its own leadership and control".

However, Mr Brennao contends that those same groups of potential students cannot be depended upon to make up for the future decline of college-age students as a whole.

Black and hispanic youths will make up an increasing percentage of the 18-year-old population between now and the late 1990s. But, the report notes, these minority students have a substantially lower rate of high school completion than majority youngsters. Likewise, in increased enrolment of students from low and middle income families cannot be counted on, considering the increased amount of financial aid that would be needed and the uncertainty of federal and state government funds, the report says.

"Increased enrolment of young people from low and middle income families is outside the control of colleges and universities... It is difficult to forecast with any optimism an increase in student aid that would support an additional 560,000 students from (this group)," the report concludes.

Enrolments drop may be 'disastrous'

Higher education institutions face a 15 per cent drop in enrolments in the next decade and for those institutions which do not plan ahead, the results could be "disastrous", according to a study sponsored by the Association of Governing Boards of Universities and Colleges.

The decline in enrolments, which could be as great as 25 per cent for some institutions, will hit colleges and universities in the north-east and the mid-west the hardest, according to the author of the AGB report, Mr David Breneman, senior economic fellow at the Brookings Institute.

Mr Breneman predicts that up to 200 institutions will not pull through the enrolment crunch and that small, private liberal arts schools and public schools will be especially vulnerable.

The AGB study, entitled "The coming economic crisis" what every trustee must know", was in response to a survey of chief executive officers of higher education institutions which said only 16 per cent of the executives expect to lose enrolment over the next decade, while the remainder were divided between those who expect enrolments to remain steady and those who expect an increase.

"In too many cases, governing boards and policy makers have been kept in the dark about the demographic problem," said AGB president Robert Gale.

Another possible reason for the optimism of trustees is offered by Mr Breneman, who notes that forecasts of enrolment drops in the 1970s proved false.

Mr Breneman's estimate of a 15 per cent drop in college enrolments by the mid 1990s is based on various forecasts and an anticipated 25 per cent drop in the 18-year-old population by that time. According to his many educators expect the decline to be offset by the same factors which contributed to increases in the past.

"Recent years have witnessed a remarkable expansion of access to higher education for women, racial and ethnic minorities, low-income students, and older part-time students, and older part-time students have been encouraged to attend," he writes in the report's introduction.

However, Mr Brennao contends that those same groups of potential students cannot be depended upon to make up for the future decline of college-age students as a whole.

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The increase of female enrolments during the 1970s has slowed to the point where in recent years younger women have enrolled in college in roughly the same proportion as men. And, although the number of older students also increased during the past decade, the expiration of GI bill benefits for Vietnam veterans creates an uncertainty for future enrolment increases for this group also, according to the report.

While upholding the CIA's refusal to confirm or deny covert intelligence contacts in academia, the court rejected the agency's suggestion that to do otherwise would run the risk of bad publicity, serving to dissuade some academics from cooperating with the CIA.

President. Shortly after Adinirni Turner's statements, Amherst College issued a policy that all arrangements between the college and the CIA be of a public nature. It prohibited the administration from cooperating with the CIA on "security investigations pertaining to the recruitment of any present or former member of the faculty, student body, or staff without the consent of the individual to such action."

The agency reportedly follows four guidelines on academic relations: ● all relationships between the CIA and academic personnel should be made known to senior administrators at the university or college; ● all recruiting for CIA employment is and will continue to be conducted in the open; ● no academic person is "employed" by the CIA without their knowledge and consent; ● an operative of the CIA is not to use academics as a cover or to present themselves as a member of any academic institution.

The CIA, according to court papers, had received some 125 requests under what is called the Freedom of Information Act regarding disclosure of arrangements between the agency and over a hundred colleges.

The agency makes no secret that it maintains consulting arrangements between scholars and its research analysts. In 1978 the then director of the CIA, Stansfield Turner, said that "certain Harvard professors" were ignoring that university's policy by keeping secret their relationship with the spy agency.

In May 1977 Harvard issued guidelines recommending that all members of the staff "should report the existence of such an arrangement" to their respective dean who would con-

CIA wins over secrecy

from E. Patrik McQuaid

CAMBRIDGE
A federal appellate court has ruled that the Central Intelligence Agency may keep secret not only the names of American colleges and universities where it "collects confidential information and advice from academics" but also those where it does not.

The decision serves to keep scholars in the dark about the activities of their colleagues and the CIA despite disclosure policies at most research universities. It is a unanimous decision by a three-judge panel sitting on the US Court of Appeals, resulting from a suit filed in 1980. A student in Los Angeles sought full disclosure of all arrangements between the agency and the nine-campus University of California system.

It has remained the official policy of the CIA neither to confirm nor deny employee identification, according to agency representatives. The court, in an opinion written by Judge Oliver H. Davis, determined that to reveal information about agency contracts for scientific research and development as well as social science research related to foreign policy matters "might very well disclose sources or methods of foreign intelligence".

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Special offer

Federal latecomer breaks the ice

In a sudden switch of federal policy, Canada's new Secretary of State Mr. Serge Joyal made an unscheduled appearance at a landmark conference on higher education policy staged in Toronto last week by provincial education ministers.

His predecessor, Mr. Gerald Regan, had angrily refused an invitation because the provinces had excluded the federal government and barred federal ministers from speaking.

Mr. Joyal's decision to attend was the first hint of a thaw in relations between Ottawa and the provinces, which have been chilled this year by a new argument over how much the federal government can influence higher education - constitutionally the responsibility of the country's 10 provinces.

In a brief after-dinner speech, Mr. Joyal said he was anxious to hold talks with the provincial ministers on higher education needs. He promised to approach the talks "in a cooperative way" and avoid unilateral shifts in federal policy towards the sector.

Mr. Joyal's conciliatory remarks had an immediate impact on the provincial ministers. Dr. Bette Stephenson, chairman of the provincial Council of Ministers of Education, said in a closing address that the Secretary of State had given her new hope.

"A few months ago governments were slinging mud at each other while institutions waited like nervous debutantes," she said. "I can tell you

North American editor Peter David reports from Toronto on an experimental conference on Canadian higher education

The mud is still there but at least the slinging has stopped.

"After meeting and listening to Serge Joyal at this conference I have a sense of hope that the provincial governments and the federal government are entering a new stage of understanding and cooperation."

More than 400 university and government leaders attended the conference, the first of its kind held in Canada and, according to Dr. Stephenson, the most representative group ever brought together to discuss the nation's policies on post-secondary education.

The provincial ministers said they organized the conference because the Canadian delegation at an international OECD meeting on higher education a year ago had returned home eager for a chance to discuss the same themes in a specifically Canadian context.

In private however, officials of the Council of Ministers admitted that the conference was also intended to signal to Ottawa and to the academic community that the provinces wanted to take their con-

stitutional responsibility for post-secondary education seriously.

There was evidence at the end of the conference that many organizations represented at the meeting had not received the right message. Nine faculty associations, including the Canadian Association of University Teachers, issued a statement accusing the council of wasting a unique opportunity to hold real pan-Canadian talks on the financial threat to higher education.

"The estimates of the cost, both direct and indirect, of the conference range as high as a half-million dollars. We do not think this money has been wisely spent. The time of busy and dedicated teachers, students and staff has not been used to address in real terms the issues that are critical," the statement said.

In a separate statement the Canadian Federation of Students questioned the motives of the Council of Ministers and accused it of using the conference to create an illusion of action on the postsecondary front.

It continued: "The conference was characterized by non-representative

panels and unwieldy discussion groups that stifled participation from a representative cross-section of the education community."

The format for the conference had been borrowed from the OECD conference in Paris last year, which concentrated on the medium to long-range prospects for access to higher education, relations with industry, finance and government.

As a result there was little discussion in Toronto of the imminent confrontation between Ottawa and the provinces over the amount of money the federal government intends to give the provinces this year for higher education.

In talks last July the federal government made it clear that it would refuse to increase the proportion of federal money going to the universities - currently more than 50 per cent of their costs - if the provinces continued to block Ottawa's request for a bigger say in how the money was used.

Dr. Stephenson, anticipating some of the criticisms from participants, promised in her closing address that the council of ministers would consider ways of involving higher education institutions in some of the major decisions confronting the ministers.

One possibility would be the establishment of a permanent forum to discuss postsecondary education policies.



Camille Laurin: "HE's role is essentially cultural."

A plea for the old values

Higher education should not seek to justify itself during the present economic crisis by increasing vocational training and betraying its traditional role of basic research and teaching, Dr. Camille Laurin, Quebec's Minister of Education, told the conference.

He acknowledged that the fall in the student-age population and the worsening economic outlook was affecting universities in Canada and elsewhere, compelling higher education to justify its role and costs. But Dr. Laurin urged universities to reject "sterile dichotomies" between their cultural and economic contributions.

The role of higher education was essentially formative and cultural and preparing students for working life entailed more than job-specific training.

"Being able to lead a successful working life also means behaving like a responsible, creative citizen capable of cooperation and having a critical mind as well as a good imagination, in a professional capacity as well as in daily life," Dr. Laurin said.

Forecasts of manpower training needs would not be used to plan the balance of university courses. Countries which had done so had failed because it was impossible to predict the interplay of factors which determined the demand for graduates.

Institutions of higher education had to be sensitive to new groups of students and their changing requirements but ought not to respond by reducing the educational content of courses or destroying the balance of disciplines.

"Let us have enough of a sense of history to believe that disciplines have ups and downs with respect to demand by society," Dr. Laurin said. "Let us not conclude too quickly from the decrease in job opportunities that such and such a sector is useless."

Dr. Bette Stephenson, Ontario's education minister and chairman of the Council of Ministers, said it was important to maintain a balance between traditional liberal education and more specific job preparation. But she warned that the training component was likely to grow.

"There are those who refuse to consider this utilitarian view of higher education, and I believe it would be regrettable if it were to become the only officially defined role of postsecondary education, particularly the universities," she said.

"But a failure or refusal to recognize that higher education has an increasingly larger training component is not likely to improve the status of the system in the public's increasingly critical view."

In search of excellence

Quality control, which necessarily involves subjective and so controversial judgments, is certain to become an important issue in higher education in the 1980s. Already the University Grants Committee has applied its own criteria of excellence to the distribution of a much reduced university grant, and now the new National Advisory Body for polytechnics and colleges is toying with the best way to measure quality.

Yet outside bodies like the UGC and the NAB, and to a lesser extent, the Council for National Academic Awards, are sometimes regarded as too bureaucratic and too remote to do this delicate job properly. Informal procedures such as external examination and peer review are criticized for being too subjective and to incestuous.

The THES will describe the different dimensions of quality control to universities, polytechnics and colleges - external validation and internal review, outside inspection and internal evaluation. The roles of CNAA, regional advisory councils, profes-

sional bodies, and the Inspectorate will be discussed as well as the less formal procedures common in the universities. The series will end with a report of The THES's own survey of the best departments in four disciplines in British higher education.

This week PATRICIA SANTINELLI describes the work of the CNAA and goes on a visitation to a polytechnic seeking approval of a new teacher training course.

change in the CNAA's charter. Dr. Kerr, however, is quick to point out that the council's actual structure will not change, nor is there any intention that the council should move into validating university courses.

"However, I do believe that universities could well profit by adopting a similar system to ours. CNAA validation provides a body of experienced academics and others whose assessment is not just based on their own experiences but who have a national overview," he said.

Three tiers for the CNAA

There is no doubt that a process which forces lecturers to question themselves on the production of a course, its aims, cost, methods of teaching and learning, has been extremely beneficial to the public sector, he added.

This process is extremely varied and never static. Its maintenance and development is the responsibility of the council's three tier structure.

The council is headed by a chairman and includes 25 members, most of whom are drawn every year from institutions of further education. The rest are divided almost equally between universities and industry, with two members from local education authorities, especially as it will require a

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combines in most respects the dual functions of a university council and senate and is the authority on all matters of policy and finance. Its income all comes from student registration fees.

Twelve committees, broadly comparable to faculty boards report to the council. Seven deal with academic policy, institutions, Scotland, review and structure of membership, higher doctorates, constitution and a general committee dealing with finance.

Five committees deal with specific subject areas and are responsible for the approval of courses or programmes of research. Those cover art and design, arts and social studies, business and management studies, science and technology and education.

The latter is the means by which the Secretary of State for Education is satisfied as to the suitability of individual teacher training courses validated by the CNAA and for the arrangements recommending qualified teacher status.

In turn the function of the committees is delegated to some 65 boards and panels with a combined membership of 2,100 which are dealing directly with the evaluation of courses.

The boards/panels members are selected on the same basis as council members but are unpaid.

There are four main types of boards: Those that deal with single disciplines; those that deal with a number of related subject areas; those which consider multidisciplinary courses; and those that consider a particular type of course in a given area.

The boards are responsible among other things for approving the appointment of external course examiners. They also have to provide for the exchange and discussion of views and the professional implications.

The "Partnership in Validation" scheme means that validating procedures are now much more review than approval.

Courses are now approved for an indefinite period subject to review instead of a limit of five years. As a result institutions and departments are now not so fearful that their courses can be withdrawn.

Dr. Kerr says that "Partnership in Validation" was only a formal statement of a policy which had already been implemented by some of the boards.

Validation starts with the Institution's course team. A new course takes 18 months to 2 years to prepare. Teachers first have to seek their faculty board approval. The institution has to approve it in the context of its resources, development plans and market research.

It is then sent to the local education authority, which seeks the approval of the Regional Advisory Council which then forwards it to the Department of Education and Science.

Only once DES approval has been granted can the institution officially submit its course to the council. By this time however the course team will probably have had unofficial contact with the council and local inspectors.

A visiting party will only go to an institution if there is a reasonable chance of approval being granted. Arranging a visit can take up to two or three months.

Anatomy of a polytechnic visitation

Tremendous stamitas from both the visiting and the visited is needed when the CNAA comes to call. It is surprising that the CNAA continues to recruit visitors whose only tangible reward is a good meal.

Visiting or "trading party" members are usually drawn from a variety of backgrounds. In this particular example because the postgraduate teacher training course being examined comprised primary and secondary routes the party included both primary and secondary specialists.

There were also members who could comment on teaching skills, and theoretical studies, as well as experts on educational psychology, multicultural education, sociology, special needs and a serving teacher.

The council generally tries for a rough number - in this case 12 including a CNAA officer - who can comment on different expertise. But it has been known for 30 people to descend on an institution.

Members are also selected for their ability to avoid confrontation and for their positive view of the validation process. Even so personality problems do occasionally occur.

In this case the visitors' job was helped by the polytechnic's faculty of education decision to seek an informal setting.

The purpose of this visit was to examine a radical move by the faculty of education to split a Post Graduate Certificate of Education course into two routes: primary and secondary.

The faculty proposed replacing the existing first school and middle school routes by a 2-11 primary route aimed at serving students with interests in the lower and upper primary age range.

Everyone involved then trooped into one big room, including teachers, students, the course team and Her Majesty's Inspectors to hear the polytechnic's case. The chairman congratulated the course team for their frank report.

The course director explained that one of the main reasons for changes was that examiners had found it difficult to see how they were achieving their aims in middle schools.

There were not enough middle schools to place their students for teaching practice and in the end they were really producing lower secondary teachers.

In answer to questions he emphasized that the course had not been split all the way to ensure that students would continue to meet, and because some common ground such as theoretical studies must be retained.

The visiting party's questions covered areas such as the teaching skills, the amount of contact time, the length of essays, school based experience, assessment, log books and school experience as the core.

A great deal of the session was spent on discussing the reduction in contact time and workload proposed by the course team. It emerged that the decision to cut the workload was designed to allow graduates greater time in areas which were not being adequately covered.

It was felt that the number of words in assignments was far too restricting and that the quality of written work was suffering. It was stressed too that the cutback had been particularly requested by students.

A member of the course team said that she had supported the reduction because the course demanded a very high proportion of time spent on teaching practice.

The course team was becoming increasingly tense. In particular it seemed rattled at having to explain its assessment methods. This was not a pass or a fail but satisfactory or unsatisfactory grades.

The next step was a visit to the primary resources centre, where we could actually see the end product of activities that had been described in the submission.

A fundamental lesson here was that one should avoid at all costs putting visiting party members into the fray. It can only lead to confrontation or apathy. At least one person fell asleep, not to wake until the end of the proceedings.

Questioning was extremely tough. It ranged from why history was not a legitimate subject within the primary course to why should maths and languages be protected areas.

There was also concern about the fluidity of the timetable. Panel members were worried that this could confuse students an not allow for important parts of the syllabus.

By the end of this session the course team was only half way to persuading the visiting party as to the value of its course. The chairman made it clear that the nuts and bolts questions had not been asked.

He expressed a desire to link to staff and students on the drama course on which the primary route had been modelled.

The drama students pointed out that their course kept them involved and had the opposite effect of lectures which had "switched them off". It provided enormous feedback between students and tutors. They seemed to have no doubt about flexibility, the content or aims of the course. It was described as a spiral curriculum which operated perfectly.

Students on the current course said they had been convinced of its value by talking to tutors.

The one area which students criticized - theoretical studies - turned out to be the main source of conflict in the last session between the visiting party and course team.

It ended with no agreement and some apparent bitterness on the part of the course team.

Eventually members seemed to agree that the primary course should be given the go ahead but felt strong it should be reviewed within a set period because of its experimental nature.

As far as the secondary route was concerned there were some doubts as to whether it would recruit and survive. The local authority was inclined to agree that it should go ahead for a limited period.

The chairman said he would tell the polytechnic that the primary route would receive indefinite approval with a review in three years to coincide with that for the drama course. The secondary route would only be approved for three years as an extension with the provision that it be rethought, but that it should not be modelled on the primary route.

The main questions the primary visiting party wished to put to staff and students were on the logistics of the course. It wanted to know more about the course content in "tirores".

Yet the subject of a flexible timetable, the real content of the course, and fears that students would be exploited, continued to worry the visiting party. It was not until the drama course had been seen on the current PGCE course that members actually seemed to believe there was a case for approval.

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Political row 'puts strain on institutions'

A "deep crisis" in relations between the federal and provincial governments in Canada is imposing new stratos on higher education institutions which are already short of funds, according to Mr. J. F. O'Sullivan, vice president of the University of New Brunswick.

In a paper on public priorities in postsecondary education, he claimed that the current debate over the level of financial support for higher education had nothing to do with higher education's needs.

"Instead, most of this discussion is to do with the general division of fiscal resources between federal and provincial governments and with the interpretation of the constitutional authority and responsibility of these two levels of government," he said.

"These federal-provincial confrontations have precipitated a special crisis for higher education, as well as for health care and other programmes for which governmental responsibilities have been shared in a particular way, but which the two levels of government cannot agree to maintain."

Mr. O'Sullivan was referring to a major dispute between the federal and provincial governments over the system of Established Programme Financing, which enables the provinces to receive more than \$3,000m a year from Ottawa but retain complete discretion over the use of the funds.

Recently, the federal authorities have announced their intention to reform the EPF system so that Ottawa can play a part in determining higher education policy.

In his paper, Mr. O'Sullivan said there were bound to be occasions when strong intervention by the federal government was necessary to ensure the achievement of national objectives.

"It would be overly sanguine to assume that the simple sum of 10 independent provincial policies will necessarily satisfy the full range of national needs in the field of higher education or that voluntary cooperation of coordination among the provinces would assure their fulfilment," he said.

But the introduction of separate federal and provincial grants - in place of the present system of exclusively provincial control of university funds - would produce conflict and

Access attack prompts walk-out

An outspoken attack on Canada's policy of allowing over increasing numbers of people to receive a university education prompted scores of delegates - including the leadership of the Canadian Association of University Teachers - to walk out of the formal conference banquet organized by the Council of Ministers.

Mr. Roger Gaudry, former rector of the prestigious University of Montreal, delivered a searing after-dinner speech claiming that the quality of higher education had been degraded in the name of "democratization," and calling for sweeping rationalization to restore standards.

Universities in Canada and elsewhere had responded to pressures to democratize by opening their doors too widely, Mr. Gaudry said. The use of a credit system, giving students a virtually free choice of studies, had resulted in the production of graduates who had never had to submit to "a strict discipline of the mind."

"Access to university has been made easy for part-time students and for adult students," he said. "They have received a teaching which is often not of university level, and which should have been given in institutions for tertiary education."

"Universities have also been allowed to multiply far too extensively the number of programmes which students could take, yielding often to the pressure of teachers trying to attract more students into their disciplines."

But in the new financial context rationalization of the university system in Canada had become inevitable. This would entail universities allowing tertiary institutions to take over lower-level work and restricting university entrance to students with a high degree of motivation and

academic preparation. Unless the universities reasserted their commitment to quality, their research functions would eventually be taken over by a new tier of separate research institutes, Mr. Gaudry warned.

"The true democratization of higher education does not consist in making it teaching accessible to everyone but rather in making it accessible to all those who possess the intellectual qualities, the preparation and the high motivation needed to work profitably in this demanding domain."

According to Mr. Gaudry, most university presidents in Canada were aware of the need to rationalize their institutions and restore high standards. But in most cases, they did not have enough authority within the institutions to overcome the opposition of academic staff.

Among fundamental problems universities would have to deal with were finding a new definition of the "widely abused" notion of tenure; closing departments which were mediocre or no longer met real needs; hiring new faculty members and discarding aging professors "who are becoming a load rather than an asset."

Mr. Gaudry's criticisms of open access came in a wide ranging closing speech by Dr. Bette Stephenson, education minister of Ontario and chairman of the Council of Ministers.

Praising Canada's success in achieving one of the highest rates of participation in the world, she said mounting economic problems might force policy makers to ask whether university-level opportunities should in future be limited to applicants with the intellectual capacity to benefit and contribute.

Stick to the economic rules, delegates are told

The expansion of universities and colleges has made higher education a fully fledged player in the economy and means they must abide by the same rules as other sectors, Dr. Bette Stephenson, chairman of the Council of Ministers, said in her closing address.

"One such rule was that the output of the system - graduates, now knowledge and public service - would have to be assessed in relation to the large sums of public money being spent on higher education."

As a result, Canadian universities would have to redefine the balance

of education and training, and accept that their autonomy could not be unlimited.

"Government must establish the general objectives for its publicly funded institutions and determine the amounts of public money it is prepared to provide them," she said.

"In the 80s we may be forced to reallocate public funds towards activities which have a more direct impact on economic development if we want to ensure that there is a wealth-producing sector within our society which will provide funds to support postsecondary education."



John O'Leary and Patricia Santinelli look at four colleges with much to lose from the Government's proposed cutbacks in teacher training

De la Salle: £1m star at stake

Sophisticated and expensive equipment is still being delivered to the impressive new centre for craft, design and technology at De la Salle College, Manchester.

Yet, although 85 per cent of the money has come from the DES, which considers the shortage subject of CDT a priority, this did not prevent the same department effectively recommending the closure of the college in its teacher education cuts.

The CDT centre, which took its first students only this month, is undoubtedly the star attraction of the college and the reason for its appearance on the DES list was greeted with such incredulity. It claims to be the leader in curriculum development within the subject, having worked closely with Her Majesty's Inspectorate and with industry.

In fact, this was confirmed when a delegation on behalf of De la Salle met Mr William Waldegrave, under-secretary for Higher Education. The delegation included MPs from both main parties as well as Roman Catholic leaders and a representative of the neighbouring education authority of Rochdale.

Brother Wilfred, the college's principal, accepts that De la Salle's fate is largely out of his hands and bade up instead in the talks which have been taking place between civil servants and officials of the Catholic Education Council.

Although the Salford diocese in which De la Salle is situated covers one of the four main centres of Catholic population in England, the presence of alternative teacher training centres in Liverpool and Leeds could militate against the college if the Catholic authorities were forced into opting for a single survivor.

Indeed, the bracketing of De la Salle with other maintained institutions instead of its rightful place among the voluntary colleges, and leaks suggesting that it was a late inclusion on the list, have encouraged speculation that it was always expected to escape the axe.

In common with other colleges of higher education, student recruitment has been booming in the past two years, especially among the Catholic students which comprise 75 per cent of the college population and more on teacher training courses.

Newman: Hoping for a primary solution

Newman College in Birmingham, like De la Salle, is at the centre of a fight by the Catholic Education Council to retain its historic share of teacher-training places to match the size of the Catholic population and schools nationally.

Bishops met Sir Keith Joseph for the third time last week to argue for a restoration of their share which has fallen by 1 per cent and which if restituted would provide enough places to keep both colleges open.

The retention of the college, the only Catholic teacher-training college left in the West Midlands, was an issue in the Northfield by-election.

One point in favour of the college, which was purpose-built in 1968, is that if it did not exist the CEC would be asking for another one in the area, since the two dioceses of Birmingham and Nottingham alone have 13 per cent of pupils in Catholic schools in England and Wales.

The college believes it has a strong case for surviving. In answer to criticism by the Department of Education and Science that it has concentrated mainly on secondary education recently, it argues that this was a natural response to market forces in ensuring the employment of its students.

We do not need to retrain anyone; all that would necessary would be a change of emphasis

In fact Mr Simon Quinlan, who was the first lay principal to be appointed to a Catholic college and who has been at Newman since its inception, argues that the college has tremendous expertise in primary teacher training, which is exemplified by the fact that a large number of staff regularly teach in primary schools.

"When we told the DES earlier this year that we were prepared to go over to primary completely, it was not a lightly based statement," he said. "We do not need to retrain anyone; all that would be necessary would be a change of emphasis."

And because the college has responded to recent curriculum developments, it has strong basic expertise in key areas such as language development, primary school science, microcomputing and multicultural

COLCHE: Caught in the confusion of political uncertainty

The plight of the City of Liverpool College of Higher Education is a perfect example of the confusion which seems to settle over every difficult political decision in that city. Even the board of the National Advisory Body, which wants the college removed from the list of those to lose teacher education, did not arrive at a simple solution.

Indeed, the year's reprieve which the NAB board favours is hardly the remedy sought by Mr Brian Cane, the principal, since it carries with it the threat of merger with Liverpool Polytechnic - something which the college has already avoided once and which would endanger the educational ethos behind COLCHE's present programme.

Now a merger could be the route to retaining the teacher-training

education, all of which are likely to be in demand in the 1980s, particularly for training primary teachers.

Mr Quinlan pointed out that the Government had only recently selected Newman as one of the main centres under the Microelectronics Education Programme for the preparation of programmes for primary schools. The college now has a computer centre which is gradually providing a software service to schools.

The college has also been criticized for its poor recruitment. But Mr Quinlan says that although this is true it must be seen in context. The college was not allowed to diversify, and this had obviously affected its numbers.

It had also been affected, like other institutions, by general bad recruitment and was suffering by having its quota pegged at the 1981 level of 61. In fact by negotiating with the CEC it was able to obtain an extra 12 places and could have taken more. Out of this total, 57 were in primary training.

The college has got a strong in-service training reputation within the West Midlands. As a well equipped and well resourced centre it can offer a wide range of BEd degree and diploma courses as well as the shorter regional/DES courses. About 100 teachers were taking the BEd degree in 1982/83.

In addition the college has a substantial amount of involvement in practical curriculum development and research linked to teacher training. For example one of its projects is in children's writing. This is being undertaken jointly with the English language research unit at Birmingham University, the college's validating body.

Mr Quinlan points out that many of these aspects seem unknown to the DES and he hoped that having presented the college's case, ministers would reconsider their decision.

If it is not retrieved, the first area to go would be the in-service provision. The second would be staffing in the run-up to a closure in 1986, as it was unlikely that those lecturers who could easily find other jobs, such as in computer science, would remain behind.

He did not believe there could be a solution by merging with Westhill, the Freechurch college in Birmingham, although they had investigated collaborating as a first step in joint training for in-service BEds.

Ultimately though the survival of the college would not depend on the massive support it has received nor so much on the DES, but on the extent to which the Catholic Education Council is prepared to compromise. Unofficially it is believed to be prepared to let Newman go. Officially it says it will fight tooth and nail for the retention of both colleges.

Bishop Grosseteste: Still in the dark

Bishop Grosseteste, one of the institutions which would almost certainly close if teacher education was removed, has still not been told after three months why it was included on Sir Keith Joseph's list of "baddies".

To the college, the announcement that it was to discontinue teacher education came literally as a bolt from the blue. Being entirely devoted to and with a good reputation in primary education, it had reason to believe it would expand.

And, since the college has always had good relationships with both the DES and HMI, the shock was greater, as it had been given an indication that it was dispensable or not fulfilling its obligations, indeed the contrary seems to have been the case.

In fact it is because of this relationship that the college decided its best plan would be not to launch a coordinated attack on the proposals but rather more subtly bring new evidence to bear on the case.

At a recent meeting with Mr William Waldegrave, the college was able to point out one aspect which the department seemed to have disregarded, the regional implications of closing the college.

To remove the college would leave a hole in the in-service provision in the area, as it provides courses for Lincolnshire teachers and to thousands of teachers in northern Cambridgeshire.

Local authorities are not usually enthusiastic about teacher training institutions

Without Bishop Grosseteste teachers would be forced to travel to Hull, Nottingham and Cambridge to upgrade professional qualifications or take specialized diplomas in such shortage areas as primary education, special educational needs, mathematical or religious education.

Moreover it is unlikely that this would fill the gap left by the college as other institutions' resources are already strictly limited. In fact some 30 local authorities in the region and, further afield were so incensed by the proposals that they have written strong letters to the secretary of state for education arguing for its retention.

Mr Leonard Marsh, principle of

the college, says this is unusual. "Local authorities are not usually enthusiastic about teacher training institutions, let alone ones that they do not own."

Moreover there would be wider social and economic impoverishment if the college as the last remaining tertiary institution in Lincolnshire was closed. It has had an "open door" policy for some time and many organizations have used the college as a centre for continuing education and for leisure activities.

And in a region with unemployment above the national average, the loss of 150 jobs and of annual expenditure of some £1.5m cannot be disregarded.

The college also feels strongly that it has got over its recruitment problems. Like many institutions it suffered from poor BEd recruitment in 1980 at which time primary teaching was not seen as offering good employment prospects.

But Mr Marsh points out that although they were pegged to a target of 68 for 1982 by the DES, they could easily have recruited well over a hundred, who would have a good chance of placement at the end of their courses since the college's employment record is high with nine out of ten students getting jobs as teachers.

The college has also been pressed about its lack of a postgraduate primary course. Yet it is known that Bishop Grosseteste has for the last six years been asking the DES for support to start such a course.

It is certain that college resources and experience would have made it a more appropriate setting for a postgraduate primary course than some of the universities which have now been asked to establish these without links in the area.

In this the college is supported by its validating body the University of Nottingham which describes the college as one of the most competent institutions in the field. One that seeks to combine academic rigour and professional skills in a very innovative way, and whose staff go out and teach in primary schools.

If the DES should decide to close the college, it will have to face the might of the Church of England. Already bishops and MPs have been pressing for the retention of the college and an active campaign would be mounted to oppose its closure.

Once the governors and the Church of England's board of education have met to plan their strategy, the matter is not resolved by Sir Keith Joseph would be taken to the Prime Minister.

The Church's attitude is different from that in the time of Harding. It will not let the college go, but on the contrary will press for the undertaking given by the DES in the last few years that it would retain all its 11 colleges until the end of the century.

An open-minded and flexible approach to the need for creative change

Mr Christopher Ball is not only the first chairman of the board for the new National Advisory Body for polytechnics and colleges, but also the first non-clerical warden of Keele College, Oxford, that monument in coloured, crumbling bricks and perhaps more resilient Anglican traditions.

In both roles he has to act as a skilful agent of change, balancing necessity with sensibility. During the past 20 years Keele, once an institution with traditional strengths in history and theology and very much committed to the purposes of its founders, has become one of Oxford's largest colleges with new strengths in engineering and the sciences.

Mr Ball, who has presided over the most recent part of this process without offending the sensibilities of past Keele members, and who is flexible enough to accept the occasional misplaced invitation to preach a sermon out of piety to his predecessors, may know a lot more about creative change than initial critics in the polytechnics and colleges were prepared to concede.

A second quality which Mr Ball brings to the chair of the NAB board is an open-mindedness which a more engaged person would perhaps have found difficult to achieve. He has learnt much in the past six months because he had much to learn. Someone initially better informed might have learnt less.

Mr Ball, of course, was not involved in the original horse-trading between the Department of Education and Science and the local authorities which led to the formation of the NAB. Nor did he have any influence over the development of its peculiar constitution which includes a top-tier committee and a second-tier board. So perhaps a degree of neutrality can be added to the open-mindedness.

He admits that he was at first surprised by the way the NAB had been set up. As a university teacher, he was irritated by the complexity of the committee-board structure, the generous representation of civil servants and local authority officers on the board (despite the dominance of the committee by these two interests), and the lack of a sufficiently large number of "academic" members. It seemed a long way from the obvious model of the University Grants Committee.

But after six months in the job, he takes a view of such questions that is more positive, if less simple. Although the NAB represents an unusual, and potentially unstable, compromise between national and local government, this ambiguity has not been, in his experience, the source of any trouble.

Instead, the DES and local authority members have given him positive support as chairman, both apparently convinced of the need to make the NAB work. So Mr Ball's views have shifted - and not simply because he has been guaranteed by this strange solidarity a convenient block of 12 votes on which in most circumstances, he can rely.

At first he was disappointed that the committee was not prepared to leave the board alone to get on with the job but insisted on shadowing it, meeting by meeting. "Now I accept that elected representatives have to be able to take responsibility for NAB decisions."

Instead of deploring strong DES and local authority representation, Mr Ball sees it as a considerable asset. He explained: "These political influences can be helpful. They mean that if NAB gets its decisions right it will be able to rely on strong political support." Seen in this light, it may be the DES and the local authorities which end up as the prisoners of the NAB rather than the converse.

Mr Ball has also shifted his ground on the representation of academic interests on the NAB, although he admits that he shared the common initial criticism that the body lacked proper academic credibility. He now believes that a UGC model would be quite inappropriate for the non-university sector.

"The problem of academic credibility cannot be solved by tinkering with the board," he explained. "It is

Peter Scott talks to Christopher Ball, chairman of the National Advisory Body, about its changing priorities and direction

not that the NAB has insufficient academic credibility; it has none at all in the sense in which the UGC is 'academically credible'. But that is not really its main job."

Mr Ball makes three points in elaboration. First, the academic input into the NAB's work should come from the third tier, the subject working groups (at present art and design, pharmacy and engineering). Second, increasing institutional representation on the board would not necessarily do much for academic representation.

Reflecting perhaps the syndarctic mentality of the Oxford don or his many years in the chair of the Council for National Academic Awards' English board, Mr Ball is careful to distinguish between institutional views as formulated by principals, directors and other managers, and the academic interests of teachers. He makes no secret of the fact that it is the latter which he values more highly.

"All my prejudices as a university teacher make me think that institutional freedom is very important. Although it may throw up black spots of irresponsibility and idleness it is the only way to release initiative. But institutional freedom is not the freedom of institutional directors (or principals or vice-chancellors) to act as autocratic managers. It is freedom much further down the line."

Mr Ball's third point is that the assessment in polytechnics and colleges of academic quality should not be the predominant criterion in determining the future pattern of university higher education. At least as important should be what he calls the regional distribution question, the attempt to make sure that an equitable distribution of courses is provided, which is especially important for part-time higher education.

"It is important that there should be a shading across the line between advanced and non-advanced further education."

Then should come the protection of minority courses in subjects of national importance. For them the NAB would rely for advice on the Inspectorate, the CNA, and the regional advisory councils.

And after that, should come what he calls "the piggy bank principle" where advanced courses, in themselves maybe undistinguished, are carrying non-advanced courses on their back, perhaps by attracting better teachers. "Although NAB can only be concerned formally with higher education, it is important that there should be a shading across the line between advanced and non-advanced further education," explained Mr Ball. Finally, there is the question of academic quality in an austere UGC sense.

Mr Ball has also shifted his ground on how the NAB should get this academic input. He firmly believes that it would be wrong to try to set up discipline-based subject committees on the UGC model, partly because the NAB has only half the resources and a fraction of the UGC staff, which is already overstretched. This is partly because do not polytechnics and colleges do have the same clear disciplinary sub-structure as the universities, and



David Smith

partly because there would be no point in the NAB trying to do what both the CNA and the UGC do better.

He now intends to try to plug the NAB into the academic expertise of the UGC and CNA subject boards. He has made initial approaches to both, which have been favourably received in principle. But the ability of an overstretched UGC to cross the binary line, if only on a subject-by-subject basis, or of the CNA to move on from the threshold validation to quality ranking, remains in doubt.

Whatever the outcome, the NAB had already decided that it was "not falling for the UGC line" by going for subjects, Mr Ball explained. It had to proceed through institution, which meant of course that any closures were likely to be not of courses or even departments but of total institutions.

Many people in higher education are concerned that the NAB will end up as an instrument of the cuts whatever its initial intentions. Mr Ball ever this dilemma head on. "It is perfectly possible that the NAB may do its job only to destroy itself in the process," he said. "After all, the UGC, which was asked to do a similar job but with a flying start and is well respected in the universities, has been rocked by the events of the past year."

But he insists that the establishment of the NAB and the present policy of reducing public expenditure are quite separate. Although the accident of timing might suggest they were part of the same policy, the need for national coordination had been recognized since the introduction of an advanced further education pool and the production of the Dakes report.

"Perhaps there ought to have been a NAB to control the wider inflationary excesses of the uncapped pool," Mr Ball continued. "But once the pool was capped there was an urgent need for a central body to advise on the best distribution of available, and

the Secretary of State for Education.

The whole relationship between the NAB and the UGC will be of crucial importance, Mr Ball believes. Inevitably the question of a long-term merger between the two is raised, and already the two chairmen and their senior officials have meetings every six weeks. He believes that eventually the DES will have to evolve some all-encompassing advisory body for higher education, if only to provide the best possible back-up to the guidance which Sir Keith has already offered the universities and is about to offer the NAB in a somewhat more detailed letter.

At an administrative level, the influence of the NAB on the UGC will be considerable. The more open style of the former may ease the UGC away from its obsession with confidentiality. Calculations of teaching costs in the polytechnics and colleges, and especially any NAB attempt to squeeze out a little research money, will highlight the case for disaggregating teaching and research funding in the UGC grant. In many ways the NAB tail may wag the UGC dog.

When he became chairman of the NAB, Mr Ball placed little emphasis on the regional dimension; now, even before the inevitable arm-twisting from the RACs, he is convinced that "the regional distribution question" is perhaps the most important criterion in any selectivity strategy by the NAB.

Conversely, months ago he was more concerned about academic credibility than he is today. He now believes that to place too much emphasis on academic quality in a narrow UGC sense is to judge the polytechnics and colleges in a unjustly frame and so to abandon their rightful claim to distinctiveness.

Both shifts of priority arise from Mr Ball's view of where higher education is, or should be, going. Full-time degree-level higher education for 18 to 22-year-olds "which I value greatly because it has been my life for 25 years" needs to be planned at the centre because in Britain such students are portable, but with part-time and continuing higher education the opposite is the case. It is in this latter area that the greatest failure occurred and where the main reason for low participation in higher education is to be found.

Whatever the popularity of such an outlook in an increasingly crabby system, it is remarkably close to the original and the best intentions of Anthony Crosland and Toby Weaver. The inspiration of the binary policy, in its best and brightest form, remains very much alive - on Mondays, Tuesdays and Thursdays in a modern office block over video shops in London's Tottenham Court Road, and on Wednesdays and Fridays in the Warden of Keele's splendid Victorian lodgings.

EDUCATION AND TRAINING FOR EMPLOYMENT in the 1980's. On July 2, the Times Higher Education Supplement published a special six page feature on several facets of the New Training Initiative. Included were articles by Geoffrey Holland, the Director of the Manpower Services Commission, Mick Farley of NATFHE and Clere Short of Youthaid and others. Reprints of the feature are now available at a cost of 40p. Please send your cheque/postal order (no cash please) made payable to Times Newspapers Ltd to: Nigel Denison, The Times Supplements, Priory House, St John's Lane, London EC1M 4BX

The intellectual origins of the Bloomsbury group

On the occasion of Virginia Woolf's centenary S. P. Rosenbaum examines the cultural, political and religious ideas which influenced the author and her coterie

Centenaries are occasions for retrospective celebration. They invite us to look back in wonder at the origins, the development of the person or achievement we commemorate. The centenary of a modernist is a little troubling, however. Centenary creative and speculative energy in this century has gone into freeing us from the prisons of time. And modernism does not feel that old: its centenaries are of beginnings not endings. All of which suggests that some of the recent mementos of modernism are premature in their efforts to prepare us for the next age.

Most of the recent studies of Virginia Woolf, whose centenary falls in 1982, show themselves to be modernist by considering her only in psychological terms. But what is present in Bloomsbury's Victorian religious background through the family of Roger Fry. After G. F. Moore (whose mother had been a Quaker), Fry was the most important influence on Bloomsbury's early intellectual development, and the intuitive formalism, the purification, the group feeling, and the mysticism of various members of Bloomsbury suggest connections with Quakerism, though Fry himself was not a believer or observer. But Fry's relatives were not the only Victorian Quakers among the families of Bloomsbury. Jane Marcus has noted that the sister of that puritan agnostic Leslie Stephen was a widely-read Quaker author at the end of the nineteenth century. The subtitle of one of Caroline Emilia Stephen's books was "Thoughts on the Central Balance," and this reads like a gloss on Virginia Woolf's mysticism. Virginia Woolf's aunt called her religious belief "rational mysticism," and the term could also fit the mystical experiences represented in her niece's novels and in E. M. Forster's as well. But there are also fundamental differences here. Caroline Emilia Stephen's mysticism is introverted, arising from an inner light; the mystical experiences of Mrs Dalloway, Mrs Ramsay, and even Mrs Moore are extroverted, deriving from external nature rather than an inner light. After her mother's death, Virginia Woolf was closer to her aunt than any other older relative except her father. But she was also very aware of her Quaker inheritance and connected it, in her extraordinary memoir "A Sketch of the Past," with a streak of puritanism that made her ashamed to look at herself in mirrors. The ramifications of that guilty,

were outspoken truth-telling, social non-conformity, a quest for moral and aesthetic salvation, self-reliance on intuitive ideals, and a contempt for luxury.

The Quakers, with their legacy of the inner light, pacifism, simplicity, asceticism, and conformity, a strong sense of group identity and perhaps also a sense of persecution, were present in Bloomsbury's Victorian religious background through the family of Roger Fry. After G. F. Moore (whose mother had been a Quaker), Fry was the most important influence on Bloomsbury's early intellectual development, and the intuitive formalism, the purification, the group feeling, and the mysticism of various members of Bloomsbury suggest connections with Quakerism, though Fry himself was not a believer or observer. But Fry's relatives were not the only Victorian Quakers among the families of Bloomsbury. Jane Marcus has noted that the sister of that puritan agnostic Leslie Stephen was a widely-read Quaker author at the end of the nineteenth century. The subtitle of one of Caroline Emilia Stephen's books was "Thoughts on the Central Balance," and this reads like a gloss on Virginia Woolf's mysticism. Virginia Woolf's aunt called her religious belief "rational mysticism," and the term could also fit the mystical experiences represented in her niece's novels and in E. M. Forster's as well. But there are also fundamental differences here. Caroline Emilia Stephen's mysticism is introverted, arising from an inner light; the mystical experiences of Mrs Dalloway, Mrs Ramsay, and even Mrs Moore are extroverted, deriving from external nature rather than an inner light. After her mother's death, Virginia Woolf was closer to her aunt than any other older relative except her father. But she was also very aware of her Quaker inheritance and connected it, in her extraordinary memoir "A Sketch of the Past," with a streak of puritanism that made her ashamed to look at herself in mirrors. The ramifications of that guilty,

In Bloomsbury the distinction between means and ends in themselves sometimes turns into one between appearance and reality.

fearful self-consciousness take us deep into her art.

For all the significance of evangelism and Quaker puritanism in the intellectual origins of Bloomsbury, it must not be forgotten that it was a secular salvation they sought. Almost all the members were not just Victorian agnostics like a number of their fathers and mothers but modern atheists. It has been suggested by Noel Annett that Bloomsbury rejected the evangelical notion of original sin for an eighteenth century faith in reason and the perfectibility of man. But we do not have to return to the eighteenth century for the ethical antecedents of Bloomsbury's crucial modification of puritanism. They are clearly present in the nineteenth-century utilitarianism that Bloomsbury adapted.

The importance of utilitarianism in the philosophical origins of the Bloomsbury Group has generally been overlooked. Bentham and his followers formed a very different group than the Clapham Sect or the Society of Friends, yet it was a group whose ideas slid more than either of them to form the mind of Bloomsbury. For readers of English literature, the writings of Carlyle and Dickens have done much to discredit one of the most influential liberating modern moral theories. The ethical environment in which the Keyneses, the Stephens, and the Stracheyes were raised was created not so much by Bentham's hedonistic calculus as by John Stuart Mill's reconciliation of the values of Bentham's thought with those of Wordsworth and Coleridge. Leslie Stephen and John Neville Keynes were utilitarian philosophers. And Moore's *Principia Ethica* as well as his later *Essays* are works of moral philosophy belonging to the utilitarian tradition, though they also owe something to the Victorian intuitionists. Moore, John Neville Keynes, and the Cambridge Apostles were all strongly influenced by Henry Sidgwick, whose

significance as an ethical thinker may be second only to Mill's in the Victorian period. Through the work of Mill, Sidgwick, Stephen, Keynes, and finally Moore, the rationality of utilitarianism, its valuing of common sense and clarity, its eschewing of metaphysics and mysticism, all left their mark on Bloomsbury.

Yet Bloomsbury's utilitarianism underwent a transformation almost as extensive as the group's puritanism. Indeed it was utilitarianism that fundamentally changed the puritanism. Bloomsbury retained one of the two basic tenets of Victorian utilitarianism but not the other. Moore called one of his chapters in *Ethics* "Results of the Test of Right and Wrong," and this concisely summarizes what has been called the "consequentialism" that Moore and Bloomsbury retained from utilitarianism. Consequentialism is a more exact, if inelegant, term than utilitarianism to describe Bloomsbury's nineteenth-century ethical heritage. But Moore and his disciples were all agreed in rejecting Bentham's hedonistic criterion and therefore in qualifying his maximizing calculus. Moore substituted a plurality of goods together with an intentional concept of good as an indefinable property for the hedonistic ends of Bentham or Mill, and this of course affected the utilitarian calculus; good as an indefinable rather than hedonic property does not easily lend itself to calculations of the greatest good for the greatest number.

Bloomsbury's consequentialism is rooted in the essential distinction of *Principia Ethica* between good as a means and good as an end in itself. This distinction is engrained in Strachey and others were able to reduce those large Victorian notions of duty and virtue to their proper size as matters having to do with the right means to good ends. The presence of words relating to means and ends in the titles of various Bloomsbury works, sometimes expressed in the metaphors of travel, show how significant Moore's means-ends analysis of ethics was for Bloomsbury's work: think of *The Longest Journey*, *Howards End*, *Laudmarks in French Literature*, *The Voyage Out*, *A Passage to India*, *To the Lighthouse*, or *The Journey Not the Arrival Matters*. The fundamental distinction in *Principia Ethica* between instrumental and intrinsic value is probably more important for an understanding of Bloomsbury's ethics than the book's ideals of aesthetic enjoyments and personal relations. Virginia Woolf's *A Room of One's Own*, for example, rests squarely on this distinction: one must have the means of £500 and a room of one's own, she says more than once, in order to "think of things in themselves".

The language here is paradoxically Kantian, however; in Bloomsbury the distinction between means and ends in themselves sometimes turns into one between appearance and reality.

J. M. Keynes thought Bloomsbury forsook Moore's ethical means for his ends, but Leonard Woolf, Richard Braithwaite and others have effectively denied this. Keynes was surely right, however, when he pointed out the presence of neo-Platonism in Moore's thought and Bloomsbury's. The only philosophical tradition comparable to utilitarianism in the intellectual backgrounds of Bloomsbury is Platonism. The centre of value in Bloomsbury's literary texts is ultimately an intuitive awareness of an unanalyzable good. And this good brought back into Bloomsbury's ethics something of the mysticism, if not the metaphysics, that the group's modified utilitarianism excluded. In the fiction of Virginia Woolf this mysticism is represented in the traditional Platonic symbolism of light.

The contemplative life that Bloomsbury valued so highly is not a characteristic of the utilitarians' active ethics, though it was central for Clapham and the Quakers. But before turning to the Victorian sources of Bloomsbury's political convictions, it is important to note that although the philosophical origins of the group's beliefs were primarily ethical, there was an essential epistemological dimension to this philosophy. Utilitarianism often combined with an empirical philosophy of mind from which Bloomsbury's ideas about the nature of consciousness are descended. The philosophical realism of Moore and Russell rejected British and German (but not neces-

sarily Greek) idealism and substantially changed the theory of knowledge of Mill and others, just as Moore in his ethics had basically altered their utilitarianism. Bloomsbury more or less took their epistemology from the philosophical realism of Moore and Russell, with its dualistic analyses of perception into the acts and objects of consciousness. In the fiction and essays of Virginia Woolf, the representation of states of mind and their shifting sense and self-perceptions belong to a tradition of philosophical psychology that focused on the associations of sense experience — a tradition that connects, among others, Locke, Hume, Mill, and William James, and that can be illustrated in her so-called stream of consciousness writing. This philosophical context also helped to make Freud's psychology more available to Bloomsbury.

Why the significance of Bloomsbury's modified utilitarianism has not been much remarked upon perhaps is that it has been considered part of the group's liberalism — and everyone knows that Bloomsbury was liberal. Liberalism is a political and economic philosophy often accompanied by utilitarian ethics. Its intellectual spirit has been well described in various essays by Bloomsbury's most famous liberal, John Maynard Keynes. His account, for example, of the intellectual tradition of Malthus's work is also an account of the liberal background of Bloomsbury's work:

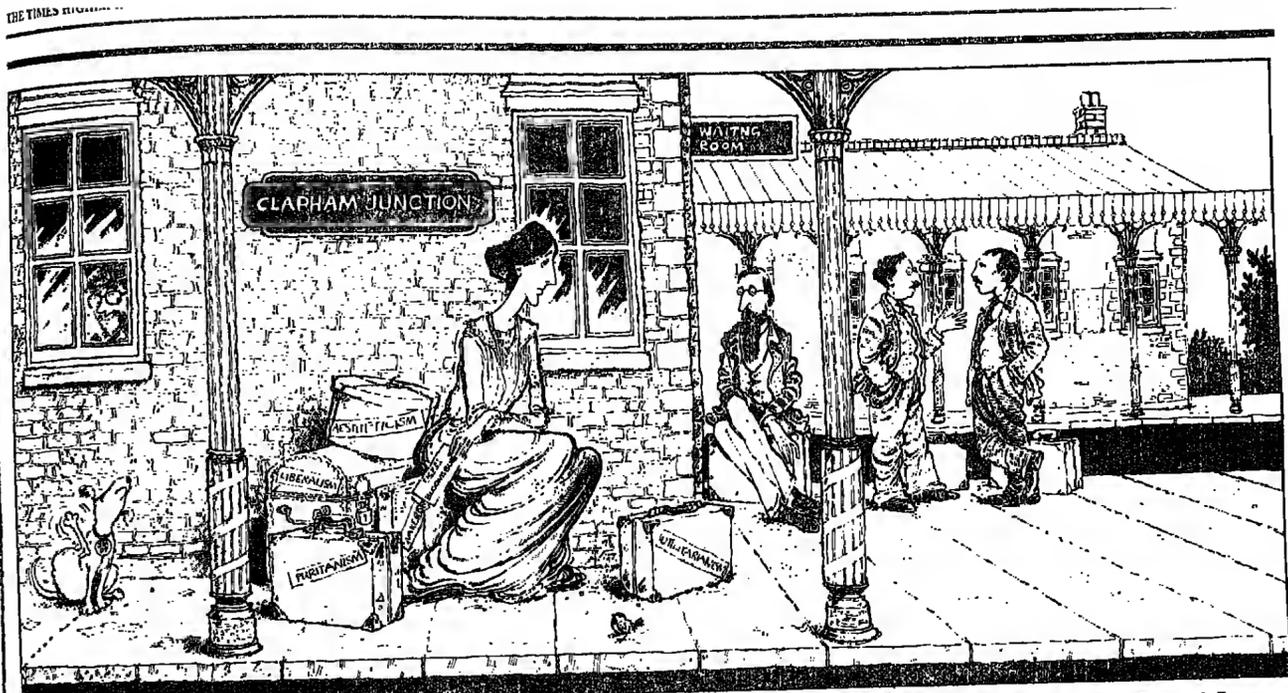
It is profoundly in the English tradition of humane science — in that tradition of Scotch and English thought, in which there has been, I think, an extraordinary continuity of feeling, if I may so express it, from the eighteenth century to the present time — the tradition which is suggested by the names of Locke, Hume, Adam Smith, Paley, Bentham, Darwin, and Mill, a tradition marked by a love of truth and a most noble lucidity, by a prosaic sanity free from sentiment or metaphysics, and by an immense directness and public spirit. There is a continuity in these writings, not only of feeling, but of actual matter in liberal-ism. The continuity of feeling and matter in liberalism as distinct from utilitarianism, centres around the values and requirements of individualism, but here the political and economic aspects of liberalism can become confused. The rational individualism of political liberalism consorts with economic philosophies ranging from *laissez-faire* capitalism to socialism. In

For Forster and Bloomsbury, social cohesion lay not in patriarchies but in tolerant co-operation, personal relations, and aesthetic experience.

trying to identify which strain of liberalism affected the formation of Bloomsbury's political convictions, the best touchstone again is the work of John Stuart Mill. Bloomsbury came to change Mill's liberalism almost as much as its inherited Victorian religious and philosophical beliefs. The direction of the change was socialist rather than conservative, though not Marxist. Keynes again illustrates this development of Bloomsbury's liberalism when, in 1925, he succinctly defined "the political problem of mankind" as having "to combine three things: economic efficiency, social justice, and individual liberty".

That ideal combination was the basis for Leonard Woolf's, Lytton Strachey's, and E. M. Forster's condemnations of the imperialism that nineteenth-century liberalism had helped to foster. Strachey and Forster also used liberal assumptions to argue for a *laissez-faire* sexuality. And in the writing of Virginia Woolf the two come together in her recurrent exposure of sexual imperialism. Virginia Woolf's is a liberal feminism. It is not a coincidence that the most influential feminist work ever written is still probably John Stuart Mill's *The Subjection of Women*. But in her awareness that the liberality of the individual must be protected from the encroachments of patriarchal institutions, she is also a very modern feminist.

Mill's liberalism influenced Bloomsbury not only because he applied the principles of individual liberty and critical toleration more widely than any other liberal thinker, but also because he recognized some of the emotional and imaginative shortcomings of nineteenth-century utilitarianism and liberalism. The liberal tradition's continuity of feeling that Keynes honours also produced philistinism. Individual liberty was a means, not an end in itself, and the inadequacy of liberalism's ends is a Bloomsbury theme that goes back to Matthew



Arnold as well as to Mill. Arnold does not belong to Keynes's tradition of humane science or his importance among the sources of Bloomsbury's ideas is revealed in the work of Leslie Stephen, the Victorian patriarch whose influence on Bloomsbury's literary work was greater than anyone else's. That influence is the subject of another chapter in the literary history of Bloomsbury, but here it should be noted that Stephen's writing owes much to Mill and Arnold.

In Bloomsbury, Arnold's criticism of liberalism and Mill's, are most apparent in the form and criticism of E. M. Forster. Liberal humanism, said Forster in his well-known essay, deserved our cheers because its values were virtuous and because it allowed criticism; only he got three cheers, and it was a private as well as an artistic but not a political state. Forster is Arnoldian in his renunciation of the lack of coherence, of fraternity, in liberalism the subject of another chapter in the literary history of Bloomsbury, but here the political and economic aspects of liberalism can become confused.

The rational individualism of political liberalism consorts with economic philosophies ranging from *laissez-faire* capitalism to socialism. In Bloomsbury, Arnold's criticism of liberalism and Mill's, are most apparent in the form and criticism of E. M. Forster. Liberal humanism, said Forster in his well-known essay, deserved our cheers because its values were virtuous and because it allowed criticism; only he got three cheers, and it was a private as well as an artistic but not a political state. Forster is Arnoldian in his renunciation of the lack of coherence, of fraternity, in liberalism the subject of another chapter in the literary history of Bloomsbury, but here the political and economic aspects of liberalism can become confused.

Aestheticism requires even more explanation and qualification than puritanism, utilitarianism, and liberalism in the Victorian origins of Bloomsbury's beliefs. Yet no other term as conveniently sums up the nineteenth-century concern with the value of art that was so important in the development of Bloomsbury. It has been widely assumed that Bloomsbury's attitude toward art as an autonomous activity of very great value was basically a modern extension of the *fin-de-siècle* aestheticism of Walter Pater, especially, but also of Algernon Charles Swinburne, Oscar Wilde, John Addington Symonds, Max Beerholm, and others. There are certainly important connections between these writers and Bloomsbury, but there were other equally important sources of Bloomsbury's aestheticism, sources with which Bloomsbury was able to transform the ideas of the English aesthetes as extensively as the group modified their religious, philosophical, and political inheritance.

Bloomsbury's aestheticism, like so many aspects of modernism, is Romantic in origin. The formalistic, autotelic aesthetics of Roger Fry and Clive Bell go back to Kant. Bell's influential doctrine of significant form also owes something not just to Moore's ethics but to Plato's theory of forms. But in the later nineteenth century, the direct and indirect sources of Bloomsbury's ideas about art appear to be French. French culture displayed a devotion to art that Bloomsbury admired. Lytton Strachey summarized this concern for art at the end of the introduction to French literature that was his first book:

The one high principle which, through so many generations, has guided like a star the writers of France is the principle of deliberate intention, of a conscious search for ordered beauty; an unwavering, an indomitable pursuit of the endless glories of art. Even more important for Bloomsbury's aestheticism than French literature was French painting.

The close association of the arts of writing and painting is one of the defining characteristics of the group. In Virginia Woolf's work, though not in Forster's, all art approached the condition of painting rather than, as Pater said, music. When, in her modernist manifesto "Mr Bennett and Mrs Brown", Virginia Woolf stated that "in or about December, 1910, human character changed," and therefore the novel changed, she was alluding with that very specific dating to Roger Fry's first post-impressionist exhibition. Virginia Woolf's impressionism has been commented upon by almost everyone. Her preoccupation with the nature of perception in her early sketches and in *Jacob's Room* are interestingly comparable to paintings by Monet and others, but in her later work Virginia Woolf became a post-impressionist. The art in and of *To the Lighthouse* is both visionary and designed.

The source usually given for Virginia Woolf's impressionism is Pater's *The Renaissance*. His emphasis on knowing one's impressions as it really is, on living for moments of aesthetic ecstasy, have illuminated Virginia Woolf's writing for many readers.

The great advantage of Pater, together with Swinburne and the pre-Raphaelites has been described by Harold Bloom as the purification of Ruskin's aestheticism by tiding it of its moral bias. Bloomsbury continued this process of aesthetic purification but it is misleading to oversimplify the origins of Bloomsbury's aesthetic convictions by treating them primarily in the work of Pater and other English aesthetes. Bloomsbury's aesthetics developed out of puritan, utilitarian Cambridge rather than Anglo-Romantic Catholic, idealist Oxford. Pater's sceptical, even sceptic epistemology and the idealist implications of Wilde's theory that literature imitates art were refuted for Bloomsbury by the commonsense philosophical realism of Moore, which gave to Bloomsbury's aestheticism a solidly logical underpinning. It is aesthetes a solidly logical underpinning.

The use of the moment in the novels of Forster and Virginia Woolf is also quite different from the Paterian moment in the conclusion to *The Renaissance*. Its function, when esthetic, is not simply an end in itself but also a means to the enhancement of ordinary temporal experience. And sometimes in Bloomsbury novels the structured moments of vision the title, incidentally, of a poem by Thomas Hardy, a poet much admired in Bloomsbury) were not esthetic but desolating. Yet there is a difference in tone, mood, and style between Bloomsbury's writings and those of the Victorian aesthetes. Traces of *Walden* can be found in Lytton Strachey's or Leonard Woolf's writing, but Bloomsbury's pessimism is tougher, more modern, than the tender-minded religious glooms of Pater or Swinburne.

Modern literature," wrote Virginia Woolf in 1927, "which had grown a little sultry and scented with Oscar Wilde and Walter Pater, revived instantly from her nineteenth-century languor when Samuel Butler and Bernard Shaw began to burn their feathers and apply their salts to her nose." There is a kinship, however, between the well-made essays of Strachey, Forster, Bell, Keynes, Desmond MacCarthy, Virginia Woolf and those not just of Macaulay, Arnold, or Stephen but also of Pater, Wilde, and especially Max Beerholm. Pater, Wilde, and especially Max Beerholm, the greatest writer of prose at the end of the nineteenth century in England was Henry James. His relationship to French and Victorian aestheticism is like everything else in his art and career, complex. But if one is looking for antecedents of influence among the novelists and critics of the Bloomsbury group, he is surely the most significant predecessor. James's moral aestheticism and its limitations, to Bloomsbury's literary aestheticism.

The influence of Victorian aestheticism on Bloomsbury's ideas about the purpose and value of art, though unmistakably important, cannot, however, be truthfully reduced to the influence of one writer. Roger Fry, the chief source of Bloomsbury's aestheticism, studied painting in Italy and France in the 1890s and knew such aesthetes as John Addington Symonds. But the ideas of William Morris were also influential on his development, as were the Omega Workshops show, and behind Morris is the complex influence of Ruskin, which impinged on Bloomsbury in a number of places, the last being found, perhaps, in the group's enthusiasm for Proust. Virginia Woolf's father had an anesthetized aesthetic sense (though he published Hardy, James, and others) as a partial result of his Cambridge education, but through her mother Virginia Woolf was connected to the great pre-Raphaelites, which reminded her of her and her friends in the great photographs of her own relationship to the painter, Cameron. And in great-aunt, Julia Margaret Cameron. Associated with the families of Victorian aesthetes; Pater's sister began teaching her Greek, and Symonds's daughter may have been her first love.

In *An Clive Bell* thanked both the aesthetes and the French impressionists for awakening an aesthetic conscience dormant since before the Renaissance and teaching that the significance of a work of art lay in itself and not the external world. But Bell, unlike Fry, did not believe this significance was also true for literary works because words had meanings that

paint did not. Both Bell and Fry agreed, however, with the literary formalism expressed by A. C. Bradley in the well-known inaugural lecture that he gave as the Oxford Professor of Poetry in 1911. The lecture was entitled "Poetry for Poetry's Sake", and it is perhaps the best statement of the transformation that Victorian aestheticism underwent in the literary history of Bloomsbury. In some respects Bradley was a latter-day representative of the Oxford aesthetic tradition; his brother was the celebrated Oxford idealist, and the lecture itself cites Arnold and Pater in the course of its argument. But that argument contains an analysis of art for art's sake that carefully qualifies it. Bradley distinguished between two meanings of the phrase: art as an end in itself and art as "the whole or supreme end of human life". Forster makes the same distinction nearly half a century later and completely rejecting the second. This is the most basic difference in doctrine between Bloomsbury and the aesthetes. Bradley does not talk about love, however, and it was love that in Bloomsbury restricted the scope of art. Bradley went on in his lecture to analyze what he called heresies of separable form and content, arguing that in evaluating poetry, the recognition of both aspects, as he called them, are necessary. "So that what you apprehend may be called indifferently an expressed meaning or a significant form." It is interesting in the light of how this last phrase became famous as a formalist's theory of painting, that it was first used as a description of literature.

The puritan, utilitarian, liberal, and aesthetic sources of Bloomsbury's convictions can be resolved into four very general traditions of western thought. The fundamental origins of the group's ideas were protestant, empiricist, democratic, and Romantic. The usefulness of such generalizing is to be found in the recognition of how these diverse traditions combined with one another in the group's intellectual assumptions. We have seen, while examining the background of their thought, how Bloomsbury modified their puritanism with atheism, their utilitarianism with Platonism, their liberalism with pacifism, and their aestheticism with love. These modifications resulted from the interaction of such different intellectual traditions. That is why it makes sense to talk of the puritanism of liberals or the aestheticism of utilitarians. The relevance of this to the literary history of Virginia Woolf is that by reading her work in the intellectual context of Bloomsbury, we can be aware of the extent to which she was a modern descendant of protestants, empiricists, democrats, and Romantics. But if we overlook her mysticism, her realism, her feminism, or her art, we will seriously misinterpret her work. This, finally, is the strongest claim that can be made for the intellectual history of Bloomsbury: to the extent to which we ignore any of the principal sources of their assumptions about ultimate reality, about knowledge, about society, or about value, we will limit our understanding of their literary history.

The author is professor of English at the University of Toronto. A version of this article will appear next year in the volume *Virginia Woolf: Centennial Essays* edited by Elaine Gussberg and Laura Gottlieb which is published by Whiston Ltd.

BOOKS

The Mr Chips of the socialist party?

by José Harris

Attlee
by Kenneth Harris
Weidenfeld & Nicolson, £14.95
ISBN 0 297 77993 1

As an undergraduate in the Oxford modern history school, Clement Attlee read for the special paper in Italian history 1495-1512. His biographer records that "power came to fascinate him, largely through his study of the Renaissance. The Italian princes of the fifteenth century thrilled him. He was intrigued by their unrelenting view of human nature." Attlee himself admitted that he "had fallen under the spell of the Renaissance. I admired strong, ruthless nicks. I professed ultra-Tory opinions."

In spite of his subsequent conversion to socialism, it is perhaps not fanciful to see this early intellectual position as a clue with which to decipher his later career. Like the model Machiavellian ruler he combined stern, high-principled civic virtue with an awareness of "how to change to the opposite" when circumstances required. He was close to few men, hated by none, and regarded personal disloyalty as the worst of political crimes. Colleagues who saw him as "a little mouse" soon found that he could reduce hard-bitten fellow-travellers to tears. "Nothing can be so uncertain or unstable as fame or power not founded on its own strength." (The Prince, chapter eight), such might have been the motto of Attlee's postwar defence and foreign policies. In Cabinet in 1949 he argued that National Service (the Renaissance ideal of a citizen militia) was a logical corollary of membership of a welfare state. Above all, he was favoured by the Machiavellian goddess, Fortune; as Kenneth Harris observes, he slipped, seemingly by accident, into power and office of a kind that evaded the grasp of more talented, more ambitious and more charismatic men.

Clement Attlee was born in 1883, the son of a prosperous London solicitor of strong Liberal and Anglican convictions. He was educated at Haileybury and University College, Oxford. Christian beliefs eluded him from childhood; though he always retained a strong engagement to Christian ethics and a lingering affection for the Anglican church. Political rebellion first took the form of right-wing Conservatism; and it is perhaps surprising that he showed no interest whatsoever in the turn-of-the-century development of aggressive Liberalism. (It is true, as Professor Marquand has argued, that Edwardian New Liberalism was the direct forerunner of the Attlee government of the 1940s, then the leader of that government appears at all times to have been subtly unaware of this fact.) When he left Oxford in 1904 he read for the bar and lived the life of a fashionable, dandified, clear-drinking man-about-town. In youth, as in age, he was reserved, self-disciplined and self-controlled. Conversion came slowly, via the Haileybury Club in Steyney, where he was persuaded to take part in running a cadet corps for boys from the East End. In 1907 he became manager of the club and took up residence in Steyney. "From this it was only a step to examining the whole basis of our social and economic system. I soon began to realize the cause of casual labour, I got to know what slum landlords and swindling meant. I understood why the Poor Law was so hated, I learned also why there were rebels. Personal experience was reinforced by wide reading of socialist authors - mainly those in the indigenous English 'socialistism and fellowship' tradition of Morris, Ruskin and Carlyle. In 1908 he joined the Steyney branch of the I.L.P., a group of men strongly



Clement Attlee at Walthamstow during polling for the 1950 General Election.

committed to high ideals of ethical socialism and brotherly love. "I knew at once that this was the right show for me."

Attlee's connexion with East London lasted for the rest of his life - as a social worker, party activist, local councillor and eventually as a local MP. From 1912 he combined management of the Haileybury Club with a tutelage in social work at the London School of Economics, where he came under the influence of Professor E. J. Urrwick, a sociologist who preached a rare combination of philosophical idealism and radical economics. In 1914 Attlee was commissioned in the South Lancashire regiment; served in the Gallipoli campaign and rose to the rank of major. Discharged in 1919 he took up residence in Limehouse, threw himself into the Jewish-Irish-I.L.P. milieu of local Labour politics and became Steyney's first socialist mayor. By the early 1920s, for all his air of upper-class reserve, he had become a much-loved local figure. "They all knew about him. You could be in a Limehouse pub and run down the Tories, and you could run down the Labour Party, but if you ran down the Major, somebody might come up and give you the old one-two."

Attlee was elected MP for Limehouse in 1922 and became parliamentary secretary to Dr. Ramsey MacDonald in the minority Labour government of 1924. He served as Under-Secretary for War in which position he initially favoured total disarmament. Later shifting to the League of Nations, throughout the 1920s he pressed for the formulation of a fully socialist economic policy, modelled on Clause Four and on the techniques of economic management learned from the war. In 1929 he was one of a minority of Labour MPs who pressed for an immediate commitment to a full socialist programme - and one of the few who survived the debate of 1931. The split which MacDonald forced him into, between the "gradualists" and "socialists" and of the misconception that Labour in power should work more effectively to make capitalism work more effectively. In spite of his economic radicalism in this period, however, Attlee never belonged to the Labour left or the I.L.P., a group of men strongly

and their entry as equal partners into the Churchill coalition of May 1940. Attlee took office as Deputy Prime Minister, with Labour's chairman, Arthur Greenwood, as a fellow-member of the War Cabinet, and Ernest Bevin as Minister of Labour. One point that is not fully brought out by this study is that it was Attlee and Greenwood - but above all Attlee - who in the summer of 1940 steadfastly supported Churchill (against Chamberlain and Halifax) in resisting Hitler's overtures for a negotiated peace.

It was in this role that Attlee presided over the profound change in British politics and settlement brought about by the war. In 1932 most Labour MPs either opposed all wars except through the agency of the League of Nations, or denounced even the league itself as a capitalist conspiracy. By 1935, however, the trade-union wing of the party which Ernest Bevin had been and Attlee himself had come to pain the conviction that the only way forward was an irrefragable and logical political power. The crumbling of Labour's faith was reinforced by the National Government's policy of non-intervention in the Spanish Civil War. By the late 1930s Labour under Attlee's leadership was portraying itself as the party of "socialist" politics, and as the party of "socialist" politics. In spite of his economic radicalism in this period, however, Attlee never belonged to the Labour left or the I.L.P., a group of men strongly

Ulamary career it was clear that he belonged to the right of the party. He had defended Macdonald against demands for control over Labour MPs by trade unions and party conference; and in the early 1930s he strongly resisted demands for grassroots control of the parliamentary party by the Socialist League. Throughout his career he firmly opposed the confinement of Labour to class and sectional interests. Labour's hopes of both political and moral achievement lay, he believed, in projecting itself as the "party of the nation". This combination of economic radicalism and constitutional orthodoxy may help to explain his spectacular advance to the forefront of the party; at the expense of more dynamic and pushy characters like Morrison and Cripps. For several years he deputized as leader to the aging pacifist, George Lansbury; and he was elected leader of the parliamentary party in preference to Herbert Morrison in 1935. He was the beneficiary of a long-lasting, post-Macdonald reaction against "unconditional surrender" and in defining British policy on the postwar treatment of Germany (oo the latter point steering a middle way between American demands for a total "pastoralization" of the German economy and Foreign Office willingness for a modified continuance of the Third Reich). On the home front he presided over the start of the war, an unremitting support of "reconstruction" and planning for the postwar, "welfare state" while at the same time warding off left-wing complaints that he was failing to use the war to advance the cause of socialism.

His culminating role in wartime politics turned out, however, to be one that nobody expected, least of all Attlee himself. With victory gained over Germany in Europe, the Labour party conference forced the party to withdraw from the coalition government in the election of 1945 and Attlee's accession as Prime Minister. In this capacity he took over from Churchill, the fraught responsibilities of negotiating with the United States over the atomic bomb. Attlee's long-standing dislike of communism, and profoundly influenced the course of British foreign policy in the postwar world. Stalin, he wrote, "was a man of the Renaissance, the

poets - no principles, any methods, but no flowery language - always Yes or No, though you could only count on him if it was No". At Yalta Attlee informed Stalin about America's atomic bomb tests (which Stalin was already secretly aware of through the spies Greenglass and Fuchs). Discussion of Attlee's handling of the atomic weapons question, and of its role in determining relations with America and Russia, forms what is probably the most controversial section of this book. In August 1945 the Americans abruptly terminated their lend-lease arrangements, thus alerting Attlee to the dangers of too close a reliance on continuous American benevolence in the postwar world. The high price extracted for a postwar American loan (including a date for resumption of dollar-sterling convertibility) reinforced this view. And in November 1945 Truman's withdrawal from the Quebec Agreement to share atomic secrets confirmed Attlee's growing belief that both economically and militarily Britain would have to "go it alone". For the next three years Attlee's handling of Britain's defence strategy was dominated by twin fears; on the one hand the fear that America was about to withdraw into post-Versailles-like isolationism, and on the other hand the fear of imminent Soviet expansion in Eastern Europe. The former fear drove Attlee to authorize the development of the British atomic bomb, whose existence was concealed even from most members of the Cabinet until the early 1950s. The latter fear induced him to adopt in public a strongly pro-American foreign policy, that was tactically denounced by left-wing Labour backbenchers, who demanded friendship with Russia, or non-alignment, or identification with an as-yet-constituted European "third force". Not until the introduction of Marshall Aid and the setting-up of NATO were Attlee's fears to a certain extent allayed. By then the boundaries of postwar international relations were irrevocably fixed, and Britain was heavily committed to independent nuclear deterrence.

Kenneth Harris's *Attlee* is the first major study based on primary sources of one of Britain's most enigmatic prime ministers. It is an immense work (over a quarter of a million words) and an amazing feat of authorial willpower. It is a work which the author writes with a certain amount of regret that notes on the voluminous sources are not more precise and detailed, but doubtless many PhD theses will be written to put that right. I personally remain unclear about certain issues - why, for example, the most anti-American sections of the Labour Party were the most willing to co-sign Britain's defence to American control; but my inability to solve that conundrum is not Kenneth Harris's fault. There are some points that I should have liked to know more about - such as why British negotiators in 1945 made so little use of Britain's temporary monopoly over world supplies of uranium. In spite of its length, the book is continuously readable, only occasionally did I feel, with Winston on page 244, that I had enough of "Hitlee and Attlee" and would rather be at the movies. Attlee himself, for all his image as "Mr Chips of the Socialist Party", comes across as a figure of great and unostentatious power. Only in the atomic bomb episode does he appear to shrink into a diminutive figure who was finding the weight of history too much for him. And who, wearing the tiara of power, would not shrink in the same way? Kenneth Harris has produced an absorbing biography, and a book which will be an essential source of reference for both politicians and historians for many years to come.

Jose Harris is a fellow of St Catherine's College, Oxford.

BOOKS

Controlling money

The Surge of Monetarism
by Nicholas Kaldor
Oxford University Press, £2.95
ISBN 0 19 871187 8

The little book contains a forceful attack on the intellectual basis and present practice of monetarism in Britain. Because it is an unedited collection of Nicholas Kaldor's recent macroeconomic writings - the two 1981 Radcliffe lectures at Warwick University and his 1980 memorandum to the House of Commons Treasury and Civil Service Committee when it was investigating monetary policy - the treatment is occasionally uneven. Compensations however: lucid analysis is followed throughout with historical and institutional scholarship. The lectures inevitably start with the work of the Radcliffe Committee. Established in 1957 because monetary policy was perceived not to be working at all smoothly, the committee reported pessimistically on the potential for monetary measures. Money supply control was dismissed since the speed of turnover of the money stock was extremely flexible and not properly viewed as a residual. Monetary policy, writing best through credit control, could "help, but that is all" in keeping the economy in balance. Kaldor associates himself with these conclusions but encourages us to probe further the underlying logic. At the root of his repudiation of the quantity theory of money (in which the money stock alone determines the price level) lies the proposition that in today's credit-money economy the amount of money in existence is wholly demand-determined. This follows from his claim that if the monetary authorities choose to maintain a lender-of-last-resort facility for the financial system (which is essential to ensure the system's solvency), then they will necessarily choose to fix rates of interest rather than the money stock. Therefore the public sector's borrowing requirement, open-market operations and the central bank's lending rate all affect, directly or indirectly, the demand for money, and monetary policy affects the "real economy" (and thus prices) only via the market which influences that rate of interest; changes have on spending. Hence, thus dismembered the theory of monetarism Mark I (as Kaldor has called it), and in the process shown causally running from money supply rather than the other way round, Kaldor gives the "right" to the monetarists' "prospects" - contemporary British policy of their view of causation, he correctly dismisses as a "purely technical" correlation between the 1972-73 increase in EM3 (clearly orthodoxy) and the rise in oil prices which both directly and via Mr Heath's notorious Phase Three, to much of the 1972-73 inflation.

Mark II monetarism (the so-called "new classical" school) is dealt with summarily. It leans heavily, Kaldor argues, on the assumption that individuals, economic agents (workers, managers and so on) possess rational expectations (a "blatantly disguised" term because "you can always infer the expected value of virtually irrefutable events" within the framework of the model). Markets are presumed to be in continuous equilibrium, which means that all unemployment is voluntary, workers are presumed to be able to present for any job, and so on. Kaldor's argument is that the most plausible transmission mechanism in Britain today, virtually ignored by Kaldor, is in fact that of "psychological monetarism" (Mark III, if Kaldor allows), founded on an enormous confidence trick. The trick is as follows: (i) foreign exchange markets participants must be convinced that the domestic price level is determined by the stock of money (although in principle the stock of coinages, pins or whatever would suffice); (ii) these people are persuaded that the computer print-out, Amazezom. Inflation? Zero, said the print-out. Incredibly. The price of bread? Two roubles, said the print-out.) Kaldor's general thesis is simple. We have returned to the economic orthodoxy of the 1920s, and monetarist dogma is again the creed of the official establishment. Inflation is held to be always and everywhere a monetary phenomenon; macroeconomic policy is simple control over the money supply; and government expenditure is believed somehow to "crowd out" private expenditure even at times of high unemployment (a resurrection of the mystified "Treasury view" of 1924-29 so savaged by Keynes). As firms all over the country report widespread deficiencies in the demand for their products the government's reaction is - incredibly - to pronounce that the supply side of the economy must be strengthened. This book is not, however, the definitive critical tract on British monetarism, for it tells us little of how an obscure doctrine reconquered the corridors of power and finance and aching of the immense social costs, transitory and permanent, which have been and still have to be suffered. Nevertheless, it ought to be read as an outstanding and provocative contribution to the most important economic issue of our times.

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Defining a fair wage

Fairness, Collective Bargaining, and Income Policy
by Paul Willman
Clarendon Press: Oxford University Press, £15.00
ISBN 0 19 827252 9

For those who believe that the only way to achieve any substantial reduction in the present level of unemployment is to introduce an incomes policy, recent research makes depressing reading. It reveals that incomes policies in the UK have done no more than provide a temporary alleviation of the problem of wage inflation; moreover, that they have distorted pay differentials and worsened the position of the low paid. It seems evident that the sort of consensus necessary for the success of such a policy just does not exist in this country and despite Paul Willman's protestations, his book lends weight to this hypothesis. It demands that the diverse and potentially conflicting notions of fairness subscribed to by workers, and shows that the practical reconciliation of these is only achieved by shop stewards who are, in general, hostile to the notion of incomes policy. This well-written, thoughtful and thought-provoking volume therefore commends itself to all those interested in the detail of wage determination as well as those advocating or opposing incomes policy. The author sets out to demonstrate the links that exist between workers' views on fairness and the activities of their representatives in bargaining in two large manufacturing plants in England. The central chapters of the book are concerned with an analysis of the responses of groups of workers and shop stewards in these plants in 1976 and 1977, to an elaborate questionnaire designed by the author. This enables him to evaluate their views on the appropriate ranking by pay of occupations within the economy, and to determine the sort of arguments and comparisons they employ when assessing the fairness of their own and others' pay. The analysis proves most interesting, and, beyond agreement on such broad issues as that skilled men should be paid more than labourers,

reveals little consensus over the relative ranking of occupations. Indeed when it comes to evaluating and ranking occupations which are close to their own, the author has to conclude that "individuals in similar work situations are so idiosyncratic in their choice of wage comparisons that it is almost impossible for policy-makers to take the process of reforming the drawing up of incomes policies". Other researchers have supposed the existence of this relatively chaotic industrial scene and have consequently concluded that without shop-floor support attempts to impose order through institutional reform or incomes policy must fail. Of course, as the author demonstrates, some sort of order already exists in the form of reasonably stable and predictable bargaining arrangements, which, moreover, do not entirely accord with shop-floor sentiments. He demonstrates that, as many had expected, shop stewards' strategies are more influential than managers' management, and that stewards manage and manipulate the use of the interests of the stability and unity of the existing bargaining arrangements. Thus the author argues that if shop stewards' support can be enlisted, a successful incomes policy could yet be designed. However, this support provides ample reason for supposing that this support will not be forthcoming. Indeed, the sort of incomes policies the author advocates will be dominated not by shop stewards but by full-time officials, and it is a mistake to believe that these two groups always coexist amicably. Finally, it is worth considering that were an incomes policy to be introduced now it would be for the purpose of administering the real wage in order to increase employment. That most individuals surveyed believed an essential element of incomes policy to be real wage protection is revealing, but irrelevant to our current problems. Perhaps this final point highlights one of the essential shortcomings of the questionnaire approach so often employed by sociologists, namely its failure to deal with the conditional nature of many of the responses. It would be interesting to know whether individuals today similarly subscribe to the idea of real wage protection, when the unemployment costs of this are all too evident.

R. F. Elliott is lecturer in political economy at the University of Aberdeen.

At the 'sharp end'

Lost Managers: supervisors in industry and society
by John Child and Bruce Partridge
Cambridge University Press, £16.50 and £5.95
ISBN 0 521 23356 9 and 29931 4

It is commonplace to point to the decline in the power of the industrial supervisor over the last century or so. Once all-knowing and able to see to hemmed in by forces from above and below. Full employment and the growth of trade unionism led to a questioning of the supervisor's authority by his subordinates. At the same time, increased technical sophistication, the introduction of new systems of organizational control and the proliferation of new managerial specialisms imposed further constraints upon him. The important supervisor, cut off from management, increasingly resorted to collective means to defend his position and interests. These developments have often been the cause of considerable concern. For the supervisor - at least according to managerial platitudes - is a key member of management. He is at "the sharp end", crucial to the transformation of policy into practice. If he is alienated from management, then performance is likely to suffer. The current plight of British industry adds urgency to this "problem" of the supervisor. *Lost Managers* seeks to provide a sociological perspective on these themes in a study of 156 supervisors in two Midlands plants. It takes as its starting point the degree of discretion supervisors had over a range of decisions, as indicated by the assessments of both the supervisors themselves and their immediate superiors, and seeks to account for the causes and consequences of the patterns of authority and influence discovered. There was a great deal of variation

both in the overall influence of supervisors and between their own assessments of their influence and performance and those of their superiors. Technological contingencies accounted for only a small part of these variations. Child and Partridge argue that the role of the supervisor could be better understood as the product of a process of bargaining and choice, as supervisors sought to deal with a variety of conflicting pressures. The lack of clear role definition was not, however, a major source of dissatisfaction for supervisors. More important were the pressure of work and the failure to recognize the supervisor in pay and promotion terms. Hence, while they were central to the management process, supervisors were cut off from management and more closely approximated their subordinates in terms of authority, market position and work situation. This state of affairs was reflected in the supervisors' sense of class, and in their high level of union membership. Joining a union was not a rejection of their managerial role but a parochial attempt to ensure that their terms and conditions of employment were commensurate with that role. *Lost Managers* is a welcome contribution to the analysis of supervisors; it draws together a variety of diverse themes and attempts to employ technically sophisticated methods of analysis. But it is also disappointing in its failure to account for the particular "coping strategies" adopted by supervisors. The research methods adopted - interviews only with supervisors and their immediate superiors, the plants studied the crudeness of many of the indicators of task and organization - precluded any deeper insights into the processes of negotiation and choice, the way in which these were determined by the broader characteristics of the plants studied, and how far the tensions identified were peculiar to supervisors.

Eric Batstone is a fellow of Nuffield College, Oxford.

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BOOKS

Curse of gentility

Literature and Gentility in Scotland by David Daiches
Edinburgh University Press, £6.00
ISBN 0 85224 438 X

David Daiches's Whidden Lectures were published in 1964 under the title *The Paradox of Scottish Culture: the eighteenth-century experience*, and that slim volume has become one of the most highly esteemed sources for students of Scottish history and literature and a model for lecturers. Now we have a companion volume, comprising the three Alexander lectures given in 1980 at the University of Toronto, which exhibits the same mastery of the subject, moving from apt and entertaining illustrative quotation and anecdote to astute general argument, and the same unimpaired density.

In his first lecture Professor Daiches links Scotland's own version of the disintegration of sensibility with the removal of the Court and the rapid disintegration of the "sugared stile" of the Makars, which James VI and his Castilian lion had attempted, with some success, to revive in the face of Protestant disapproval during the late sixteenth century; after 1603 English rapidly became the medium for serious poetry by Scottish writers north and south of the Tweed, and poetry in Scots declined into the quaint or submitted to the "curse" of gentility, as in Allan Ramsay's significantly named *Tea-Table Miscellany*.

Daiches sees gentility as "the devaluing refinement, the *wilted elegance*, combined with a somewhat prim morality, found in the tone and language of so much eighteenth-century Scottish writing, both verse and prose", and often accompanied by sentimentality. Burns, with his uncertainty of taste, frequently succumbed to the curse, and among eighteenth-century poets only Fergusson avoided it "by the sureness of his verbal craftsmanship in Scots". Daiches links gentility with an increasingly uncreative and bourgeois Moderatism in the nineteenth century leading to the low point of complacent churchly Kailyardism. The first signs of a reaction against it appeared in Stevenson's bohemianism, but a sustained assault was mounted only at the turn of the century by George Douglas Brown and John Macgregal Gray, followed (with more articulate assurance) by Hugh MacDiarmid and lesser poets such as Robert Garioch.

There is clearly much truth in Daiches's analysis, which is in essence close to those of MacDiarmid, Mnk, and many other modern Scottish critics, but the subject is capable of a rather different interpretation. One alternative possibility is suggested by the discussion of Burns's usual epistolary style, "a consciously almost self-conscious elegant neo-classical English". Burns spoke this way in Edinburgh drawing rooms "Yet with his Ayrshire friends and at home on the farm he of course spoke an Ayrshire Scots. Only in one surviving letter do we find him writing as he spoke." That last sentence may be merely a slip of the pen, but it also indicates the constant impinged argument that the Burns who spoke Scots was the real Burns, and that the self-analytical author of the letters to Clarinda was his gentile spectre. Professor Daiches speaks more in the terms of "an extraordinary balancing act, both in his life and in his art"; but that balancing act is not an antisyzygy fusing mutually exclusive opposites - feeling and thinking, real and affected, organic and imposed. For it can be argued that the tradition which Daiches calls gentile and dismisses as a "curse" has become as organic and genuine a part of literary tradition in Scotland as any other. Nor is the gentile necessarily lacking in passion. Even in the drinking song which Daiches quotes, "With roses and with myrtle crown'd, triumph; let the glass go round,

the placing of "I triumph" suggests on exuberance in the genteel de-houch, and the "polite sophistication" of the *Tea-Table Miscellany* includes the extraordinary phrase "The broken blood decaying".

Not every visitor to Edinburgh's New Town will agree with its distinguished resident's assertion, in *The Paradox of Scottish Culture*, that it makes "no allowance for the free play of a disturbing imagination" (one thinks of Turner); and so far as our own century is concerned it can be argued that when Robert Garioch laments the "wascom wark" of Fergusson's "ould town" he is overstating the case, and that his courtly provincial account of the Edinburgh Festival in "Embro to the Ploy" is hardly an adequate response to Jesse Norman in full cry, however genteel (or "gay kenspeckle") her audience.

This is to suggest that the genteel tradition may be a tougher, richer, and more deep-rooted and passionate thing than Professor Daiches allows, and not the least worthy among the successors of the old courtly tradition.

J. H. Alexander

J. H. Alexander is lecturer in English at the University of Aberdeen.

Salvaging operation

Dickens and the Short Story by Deborah A. Thomas
Batsford, £12.50
ISBN 0 7134 4331 6

The Short Stories of Thomas Hardy by Kristin Brady
Macmillan, £17.50
ISBN 0 333 31531 6

Victorian short fiction has long suffered under the reproach of not having been written by Edgar Allan Poe. For every word in a story had to contribute to "the one pre-established design", but for the great English novelists, short stories were a different exercise.

Their products were condemned by Wendell V. Harris, for example, in his influential surveys, as "formless", and diffuse pieces of what ought to have been novels: "the bulk of the short fiction of writers like Dickens, Trollope, or Hardy seems so uninspired - I tried to translate a vision for which the short fiction piece simply could not be appropriate." This idea is now conclusively discredited in the case of Dickens and Hardy by these two pioneering studies, which show the respective authors aiming at, and achieving, effects quite distinct from those they sought in their long novels.

Deborah Thomas quotes Dickens's remark that his stories are "supposed to be told by a family sitting round the fire", and shows the importance for him of the concept of oral narration in these pieces. From *Pickwick Papers*, he utilized the short story to give free rein to "fancy" than the sustained discipline of a novel would allow. This was no marginal consideration, for he believed "that the very holding of popular literature through a kind of dark age, may depend on such fanciful treatment". Professor Thomas ably traces the presence of the *Arabian Nights*, the eighteenth-century essayists, Gothic terror, chapbooks, traditional ghost stories, and the horror stories of the 1840s, to highlight Dickens's concern with techniques for dealing exceptional states of mind. In many cases, "fancy" is deployed to reveal what the narrator of the "Tale about the Queer Client" in *Pickwick* calls "the romance of life, or the romance of life!"

Rightly rejecting my narrow view of what constitutes the short story, Thomas shows us Dickens's progress from *Sketches by Boz*, through the strange last tales in *Pickwick*, to the focus shifting to "the light of Fairyland is inherent in the human breast". After all, as she reminds us, the Smallweed family in *Black House* handled all story-books, and consequently produced off-spring with "a likeness to old

monkeys with something depressing on their minds". Thomas will not allow her readers to degenerate into such a state, and takes us on a lively tour of the sready well-known *Christmas Books*, followed by a rous and original examination of the *Christmas Stories*, and a celebration of the never-failing exuberance and invention of the later stories. The book has two indispensable appendices, which list the contributors to the Christmas numbers of *Household Words* and *All the Year Round*, and provide a secure chronological frame in which to examine Dickens's whole output of short stories.

Kristin Brady also refuses to be fettered by doctrinaire assumptions about what a short story should be and should do, and provides sensible readings in Hardy, showing in particular the overall shape of each collection. In her sound accounts of the density of references that makes the *Wessex Tales* seem to emerge from a closely defined time and place, and reads *A Group of Noble Dames* as fairy tales "gone wrong", while *Life's Little Ironies* are seen to display a Hardy who is more outspokenly questioning nineteenth-century social and literary conventions.

Although less interested than Thomas in publishing history, Professor Brady makes us aware of successive changes in a story such as "The Withered Arm". After its first publication, Hardy added to it an awareness of scientific knowledge, while leaving the events of the story unquestioned, as though it were a folk tale, about which the question of credibility could not arise. Brady always clear on the position of the narrator, whether it is a speaker defined in relation to the facts narrated, or a voice uttering something close to the real folk tale.

Of these two books, both critically solid and workable, Thomas (or, perhaps, the Dickens industry) shows more impulse towards scholarship. Both eschew fashionable method. Here we have folk tale without Propp, signification without Barthes, and narrative technique without Todorov. Even Raymond Williams and Hills Miller receive only passing references in each volume. But perhaps they are the more serviceable for that, in their overall purpose of bringing these bodies of short fiction forward for critical attention, without allowing the reader to suppose the stories are used merely for the gratification of critical display. Any scrap by Dickens or Hardy is worth looking at, and here we are conclusively shown that their stories are not the mere scraps some people used to think.

David Skilton

David Skilton is professor of English at St. David's University College, Lampeter.

Listening to plays

The Poetics of Jacobean Drama by Coburn Freer
Johns Hopkins University Press, £15.75
ISBN 0 8018 2345 8

This bold and interesting book sets out to show that poetry functions integrally with characterization, structure and action in Jacobean drama.

Coburn Freer quite properly points out that most critics pay lip service to the poetry in the plays of Shakespeare's age, and pass on to what interests them most: the verbal play itself. Freer's approach is to treat the poetry simply in terms of imagery; not in terms of prosody or rhythm. He argues that to recover a sense of how verse rhythms were heard by audiences and spoken by actors relates to a historical understanding of how such drama works. Freer's modern student, however, freed from his place in the history of the language, a poem, or a play is treated as a "free object", to be studied in the same way as an essay or a novel. We have all, in his large measure, become viewers and readers instead of listeners, and Freer's Freer adds a body of evidence to show that this is the weakest



Harriet Smithson as Juliet, with Charles Kemble as Romeo, in a production of 1828, a lithograph taken from Peter Raby's biography of the actress 'Fai Ophelia': a life of Harriet Smithson Berlioz (Cambridge University Press, £12.95).

dence, much of it familiar enough, but useful as a reminder, to show how consciously authors, actors and audiences paid attention to metrical patterns, language and rhythm in the great period of Jacobean drama. The turning-point, as he sees it, came with Fletcher, who was perhaps the first dramatist to write "the poetry of his drama with readers in mind", so that they could re-create in their minds the experience of a performance. So the decline of poetic drama after Shakespeare's age is marked by "the extinction of the poet's role as a creator of mystery and enchantment... Instead he becomes a manager of responses, an objective and subtle therapist."

The central part of the book analyses the "poetics" of five plays, *The Revenger's Tragedy*, *The White Devil*, and *The Duchess of Malfi*, *Cymbeline*, and *The Broken Heart*. It quickly emerges that Professor Freer's innovative attempt to show the integral function of poetry in the workings of these plays is uneasily linked with a more old-fashioned psychological treatment of characters as if they were real persons. This results in a curious reading of *The Revenger's Tragedy*, centring on Vitellio as affected by a subconscious fear that he is the son of the Duke, which emerges into a conscious identification with the line "May not we set as well as the Duke's son?" In focusing on Vitellio's character, his "individual mind", Professor Freer takes his speeches as providing a kind of litmus test of his "self-knowledge", which decreases as his speeches become less metrical and varied; but speeches directed to the audience, like:

Here might a scornful and ambitious woman
Look through and through herself;
- see, ladies, with false forms
You deceive men, but cannot deceive worms.
(III.v.96-8)

are treated simply as expressions of character, as if Vitellio were here litigating "to validate an insanely mortal in some way proves they are untrue". In addition, Professor Freer's Quattro is correct, although his explanation is a common feature of play-quarries of this period, and in spite of the fact that the composer demonstrated it to be wrong at times, as when he buried the rhyme "Why it hits past the apprehension of indifferent hits" in one long line (V.1.123-4). It is pity that this is the weakest

R. A. Foakes

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BOOKS

Eleven million graduates

Education in the Soviet Union: public and institutions since Stalin by Mervyn Matthews
Allen & Unwin, £15.00
ISBN 0 04 370114 0

Education has long been one of the major stories of the Soviet system. Viewed against the present backdrop of economic stagnation, it has been seen as the country's most impressive achievement. Nearly all Soviet children now spend ten years at school and two million graduate every year from tertiary institutions. One million of those attending part-time courses of a political as well as vocational kind, the grand total of those being "educated" rises to a total of 100 million.

The vast institutional network that processes such huge numbers is the focus of Mervyn Matthews's study. He examines all major educational institutions and policies and traces their development since the death of Stalin - no mean feat. There are chapters on general secondary education, technical schools and colleges; higher education; student problems; and on "supplementary educational services", surveying pre-school facilities, mass political education, and courses for bureaucrats as well as for the military.

Given the comprehensive range of the book the depth of coverage is impressive. Dr Matthews packs a remarkable amount of information into 320 pages of text. For each section we get a concise description of structures, administrative controls and curriculum content. At times more of his interview material to both put the bones of formal regulations and provisions which dominate most parts of the book. Similarly, Dr Matthews's summaries of massive legal provisions adequately outline the main course of educational changes, how those changes came about, and how they are being implemented. All educational policies, so it seems, have been dictated from above by party politicians. Changes in direction are attributed "to hesitation in the top leadership" rather than to any interplay between leadership, administrators and educational opinion groups. Thus the role of the educational establishment is hardly diminished, despite the fact that this establishment successfully emasculated Khrushchev's populist moves and has dominated educational policy since the Brezhnev period.

The book's analysis of the dynamics of educational policy leaves much to be desired, its account of the impact of those policies is excellent. The chapters on higher education, a well-documented picture of a centrally-controlled system providing very traditional, academic degrees. At the end of four to six years, of heavy work-loads and numerous examination hurdles, the Soviet student emerges with a diploma that is roughly equivalent to the British undergraduate degree. As Mervyn Matthews rightly cautions, any international comparisons here are very approximate. More reliable data might have been obtained had he compared natural science degrees. Such comparisons might also have shown some light on the considerable regional differences within the Soviet educational system - an area explored in the book. There is a note on Moscow University and one from an institution in an outlying province.

Finally, getting into Moscow or Leningrad University is far more difficult than gaining admission to many of the 66 universities and 800 or more other institutions of higher education. Particularly in the present competitive conditions, stiff competitive examinations inevitably favour candidates from professional, middle-class families who often enjoy the advan-

tage of private coaching. According to our recent report, over the last five years the amount spent on private tuition equalled the total annual budget for general secondary schools. To try to counter middle-class advantage, the Soviet authorities have encouraged workers to enter higher education through special preparatory courses. And, as Dr Matthews's useful statistical tables show, recent years have seen a steady equalization in social group access to higher education.

To be sure, social imbalances remain - though they are for smaller than in Western Europe - and relative educational openness has not dented the high prestige of the professions. Few graduates want to go into industry but that is where many are sent after completing their course. Mervyn Matthews deals well with most organizational problems involved in the huge operation of "placing" all graduates. However, he scarcely discusses crucial problems that arise from the mismatch between qualifications and available jobs. This affects not just graduates in their "placement" year, but gener-

ates frustration among all those with a full secondary education unable to find anything better than semi-skilled manual work. By developing faster than the economy, the very success of the educational system has produced widespread disillusionment whose significance extends well beyond the economic sphere.

Dr Matthews fails to consider these consequences of educational policy largely because he firmly holds to the belief that educational expansion has had no perceptible impact on the political development of the Soviet Union. The fact that the educational system remains centrally controlled and subordinated to regional purposes apparently rules out the possibility that its expansion has contributed to political change of any kind. For someone so well versed in the study of education, Mervyn Matthews seems almost naively outraged that the Soviet system retains a pro-Marxist and anti-western slant. Surely, Soviet education differs here in degree rather than kind from most of its western counterparts.

More puzzling still are the grounds

on which Dr Matthews apparently dismisses educational expansion as a factor of political change. The fact that only a few scores of Soviet society million graduates in their needs by pressing for radical change in public is hardly sufficient evidence that the impact of the rest has been negligible. To reason in this way is to apply to the Soviet Union yardsticks appropriate only to open, pluralistic political systems. There are other, and arguably more effective, ways of pressing for change. Many of the eleven million graduates staff the swelling ranks of specialists whose influence over policy and over the entire climate of political opinion has grown steadily over the last two decades. Of course specialists are not necessarily liberals, but neither is liberalization the only legitimate direction of political change, as Mervyn Matthews seems to imply. A pragmatic, problem-solving approach, a concern with producing effective rather than ideologically correct policies also affects the nature of the political system and has changed the atmosphere and course of Soviet politics in

recent years. Among the public at large, education has certainly contributed to rising expectations, not just about jobs but also about standards of living.

These are large questions which Dr Matthews could not be expected to treat fully in what is an all too brief conclusion. All the same, they deserve some consideration if we are to arrive at any realistic assessment of the overall impact of educational expansion on the Soviet system. Nevertheless, because the book is essentially a descriptive study, these analytical weaknesses do not seriously detract from its value as a comprehensive and very informative survey of the development of Soviet educational institutions and policies in the post-Stalin period.

As such I am certain it will remain a standard work on the subject for many years to come.

Alex Pravda

Alex Pravda is lecturer in politics at the University of Reading.

Feminine endings

Beyond Separate Spheres: Intellectual roots of modern feminism by Rosalind Rosenberg
Yale University Press, £15.50
ISBN 0 300 02695 1

Feminism by John Charvet
Dent, £7.95 and £3.95
ISBN 0 460 10255 9 and 11255 4

Rosalind Rosenberg's pioneering and scholarly study is mainly an account of the way in which, at the turn of the century, a small group of women social scientists, aided by a few like-minded men, challenged Victorian thinking on sexual differences. Helen Thompson, for example, demonstrated the small and inconsistent nature of intellectual differences between male and female students. Moreover, when these studies allowed differences to exist, they were attributed to environmental pressures rather than to biology. Thus, social scientists like Jessie Taft and Elsie Clews Parsons attacked the doctrine of women's innate moral superiority, attributing women's moral attitudes to their social conditioning and their marginal position in society.

This group of women academics who aided by a number of sympathetic men, of whom, perhaps, John Dewey, Franz Boas, W. I. Thomas and George Horner Mead were the most important. They contributed to the development of new ideas about women, both by their acceptance and propagation of ideas about the plasticity of human nature, and by their willingness to accept women researchers as students and colleagues. Indeed, at another level, Rosenberg illustrates very clearly the extent of the discrimination against women within the American higher education system at that time. Most of these women found that their careers ended with marriage.

Rosenberg argues that the support of male scholars was particularly important because the nature of their researches led the women away from the issues which preoccupied the feminist movement. Most of the early feminists both in the struggle for the vote and in the years that followed were concerned with the similarities between men and women, but with a considerable extent, for example, the weaker sex. At the same time they were convinced of women's moral superiority and argued for women's role in social reform. Moreover, if the social reform, in consequence, the new tendencies in social science, the women scholars themselves gradually drew away from feminism. In the second and subsequent generations, women scholars, with important exceptions like Margaret Mead, tended to emphasize their role as professionals, a process greatly encouraged by

Teaching freedom

Tolstoy on Education: Tolstoy's educational writings 1861-62 edited by Alan Pinch and Michael Armstrong
Athlone Press, £18.00
ISBN 0 485 11198 5

The fruits of Tolstoy's experience as an educator in practice and in theory are included in this volume, which is a translation of his major educational writings. The impact of Tolstoy's bold, vigorous, lucid prose, combined with compositions and reminiscences of former pupils, cannot fail to stimulate or provoke any teacher.

The pupils at Yaanaya Polyana school were free to come and go as they pleased, but, even so, Tolstoy, the schoolmaster, feared that the teacher's influence, together with the timetables, class discipline, and marks might be so strong as to diminish the children's freedom without their noticing, and cause them to submit to "the cunning net of order we have cast" and "lose the possibility of choice and protest."

This suggests that for Tolstoy the purpose of education was to teach his charges the supreme value of freedom. But Tolstoy was that rare person who really did believe in freedom, and understood that freedom required the teacher to banish any *arrête pensée*, any temptation to form the child morally. He distinguishes strictly between education (necessary and legitimate) and training (attempting to make the pupil over to the image of the teacher, despotic, never legitimate). Education has no final end, it is an experiment, it has only a history. The reason why in the past all education has come to regard the inherited methods as absurd and abandoned them, is because each generation, each reformer even, has sought to free education from the fetters imposed by their predecessors, not to impose their own fetters.

What is freedom? What can teachers do? They can and must know and love their subject for its own sake; and then, although this is not the teacher's design, it will inevitably have a beneficial moral effect upon the pupil and his relationship to the teacher. Secondly, leaving the pupil entirely free to accept or reject, to approve or disapprove of the teacher's efforts, the teacher must himself go to school, so to speak, to the child, to the peasant, to the people, to Nature in order in all humility to study what the person acted upon by the educator really may discover or know their true needs. No educator, vain enough to suppose he knows what is best for another, can know. Education is based on equality - a teacher teaches only so long as the pupil has not achieved a like mastery of the subject. The model of all education

Oliver Banks

Oliver Banks was until recently professor of sociology at the University of Leicester.

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R. V. Sampson

Dr R. V. Sampson was formerly in the department of politics at the University of Bristol.

BOOKS

MATHEMATICS AND PHYSICS

Confronting the new physics

The Rise of Robert Millikan: portrait of a life in American science by Robert H. Kurgan

The recalcitrant action of physicists witnessing and reacting to the shift towards quantum concepts...

matter in multiples of a common unit, or "quanta". Some even suggested the more radical proposal that the energy possessed by matter or light was always limited to multiples of these quanta.

The crumbling of the edifice of classical physics appressed Jakob, honorary professor of theoretical physics in a German university town...

croded. Jakob's influence at the physics institute - never as high as he wished because of his secondary status under a younger full professor - is symbolically undermined further by a recalcitrant janitor who steals from his laboratory...

Jakob is further disturbed by the growing swell of appreciation for Einstein's general theory of relativity. Quite distinct from the 1905 special theory of relativity, the general theory, formulated during the war, called into question not just the ether and our perceptions of time, length, and mass but also the physical character of gravity.

McCommach succeeds in making the reader regret the collapse of Jakob's world. Millikan, on the other hand, representative of ascendant American science, resists but later accepts the new physics, following the pragmatic bent in American culture.



Robert Millikan shows off the new 10-foot wind tunnel at the California Institute of Technology in 1930. Taken from Bringing Aerodynamics to America by Paul A. Hanle, published by MIT Press at £14.

the pace in physics. Enrolments grew and no limits save financial were set on the number of professorships. The successes of American physics during the war increased opportunities...

After the war Millikan played a leading role in transforming a third-rate technical school in Pasadena into the California Institute of Technology. Money flowed from the funder, power, and real estate interests of southern California to turn Caltech in the 1920s into a research institution of world class.

vary in intensity with latitude in the way expected of charged particles passing through the Earth's magnetic field. Millikan was able to rationalize this setback as easily as he had others before.

Kargon's book is not a biography of Millikan, but rather a portrait of some aspects of American physics in an era little remembered now: a period of science benefiting industry and founded by its philanthropy, not by the government.

BOOKS

MATHEMATICS AND PHYSICS

A set of ideas

Numbers and Infinity: a historical account of mathematical concepts by Ernst Sondheimler and Max Rogerson

The history of ideas the borderline between the history of a particular set of ideas, the philosophy of that set and the ideas themselves is often age correspondingly, especially in mathematics, there has been quite a tradition of books which use a portion of each of these fields to make an attractive and digestible text.

deed solve it. After a good description of Archimedes they progress to the calculus in the nineteenth century and the concept of function, and this in turn leads to infinity again.

Admittedly to base his history ("for the school and college student") on personalities, a time-honoured method which has traps (it can be merely anecdotal) which he has managed to avoid.

The section on Galois theory for beginners is very good, although that on the relation of Brouwer's system and Boolean algebra leaves something to be desired. Hilbert's views on foundations, in contrast with Brouwer and Weyl, are hardly done justice.

The next seven chapters form a self-contained account of investigations into foundations during this century. There is one chapter on Babbage and computers before a delightful final chapter of regretful references to the topics which have had to be left out, and some hints for solving some of the exercises.

Eves is never less than tantalizing and usually inspiring. Wilder's thesis is different from the others. A good knowledge of mathematics is needed to appreciate it; also required, and this does not always accompany his argument, is some humility about the amount to be learned about methods of history and anthropology in order to understand how mathematics has developed as and when it has.

Whenever the advance of mathematical evolution requires the introduction of seemingly absurd or "unreal" concepts, they will be provided by the creation of appropriate and acceptable interpretations. The argument is supported by reference to many actual historical episodes. It is fascinating to pursue, and there is no doubt of its explanatory power. This is, indeed, all that Wilder claims: with its truth or otherwise he refuses to concern himself.

Wadsworth International Group Announces: CONFERENCE ON HARMONIC ANALYSIS IN HONOR OF ANTONI ZYGMUND edited by W. Beckner, A. Calderón, R. Fefferman, P. Jones...

Abstract symmetry A Course in the Theory of Groups by Derek J. S. Robinson Springer, DMBE ISBN 3 540 90600 2

Books section including Bruce Wheaton's 'The Office for History of Science and Technology' and C. W. Kilmister's 'The History of Ideas the borderline between the history of a particular set of ideas...'.

Wiley ELECTROMAGNETIC SURFACE MODES edited by A.D. Boardman, Department of Physics, University of Salford. THE PHYSICS OF STARS by S.A. Kaplan, formerly of the Department of Physical and Mathematical Sciences, Cork University, USSR.

Physics and Atoms of Molecules B.H. Bransden and C.J. Joachain. Kinetic Theory and Entropy C.H. Collie. A Dictionary of Statistical Terms Fourth Edition M.G. Kendall and W.R. Buckland.

Cambridge University Press Macrophysics and Geometry A.H. KLOTZ. An Informal Introduction to Gauge Field Theories I.J.R. AITCHISON. Mathematical Analysis: A Straightforward Approach Second Edition K. BINMORE.

'Subtle is the Lord ...'

The Science and Life of Albert Einstein Abraham Pais

Here is Einstein, the man and above all his science, in a master work that ranges over the central themes and struggles of twentieth-century physics.

Nuclear Magnetism Order and Disorder

A. Abragam and M. Goldman

There is a lot of physics to enjoy in this book. It belongs in all major physics research libraries, as well as in the individual libraries of low temperature physicists and of those active in NMR research or in magnetism.

The Physical Universe

An Introduction to Astronomy Frank H. Shu

The Physical Universe is a superb introduction to modern astrophysics, which communicates the fact that even the most advanced scientific ideas can be discussed intelligently at their most basic level using mathematics no more complicated than school-level algebra and geometry.

Error Analysis

The Study of Uncertainties in Physical Measurements J. R. Taylor

All measurements, however careful and scientific, are subject to some uncertainties. Error analysis is the study and evaluation of these uncertainties, its two main functions being to allow the scientist to estimate how large his uncertainties are, and to help him reduce them where necessary.

Oxford University Press

BOOKS

MATHEMATICS AND PHYSICS

Infancy of physics

Energy, Force, and Matter: the conceptual development of nineteenth-century physics by P. M. Harman

The history of physics lends itself neither to romance nor drama; as the science which is most experimentally exacting and most mathematically complex, physics is not readily assimilated by the general reader.

Especially this is true from the nineteenth century onwards; it is public-spirited to attempt even in a short space an account of its conceptual development, since histories of modern physics are notably lacking in English, and if the present endeavour does not wholly succeed, Dr Harman charts an accurate course.

Both these books offer solid nourishment to the committed scholar or earnest student with attention-span longer than average. Dr Heilbron has the easier task in that the physics of the seventeenth and eighteenth centuries reveals oddities of personality, variety of subject and vivacity of experiment - indeed, grotesquerie when it comes to electrified boys suspended from silken threads.

which supposed that matter in motion was the basis of all physical phenomena' to the breaking-point in irreconcilable conceptions of the aether. After the old, simple kinetic view of nature suffered its first severe setback with the victory of the wave-theory of light, thermodynamics imposed new difficulties. Collapse was initiated by Faraday's destruction of action-at-a-distance and the subsequent attempts to homologize "aether" and "field". Rather than write a philosophical or synthetic history somewhat in the manner perhaps of Mary Hesse's Forces and Fields, Dr Harman decided to review each major innovation in physics in turn in order to assess its effect in transforming the "mechanical view".

The result is textbook-like in style, where the generalizations are neither always clear or plainly argued. One might question, among other things, whether physics was so overwhelmingly a British science? Faraday, Maxwell, Kelvin were indeed great heroes, but did Europeans see Boltzmann, Clausius, Helmholtz and Weber as such comparatively lesser lights? Dr Heilbron's treatment shows for the earlier period how richness of understanding follows from a deep and broad survey of the international scientific scene.

Elements of Modern Physics is not, in fact, a wholly new book since it consists of the first two chapters ("Physical principles" and "The physicists") of Dr Heilbron's Electricity in the 17th and 18th Centuries (1979), followed by a revised condensation of the rest of that important book.

The two works contain large and useful bibliographies. If both authors may be thought of as historical epistemologists in diverse ways, they both perform a useful educational service, not least Dr Harman in clearing a new path through so prickly a field as he has chosen.

Rupert Hall

Rupert Hall was formerly professor of the history of science and technology at Imperial College, London.



The idea that radio sets could become portable was subject to ridicule in the early 1920s, as this contemporary cartoon shows. Taken from The Timetable of Technology: a record of our century's achievements edited by Patrick Harper, to be published next week by Michael Joseph at £12.95.

ramming problem - (NLP - for instance, the notoriously intractable "travelling salesman problem" (TSP) - find a tour of minimal total distance passing through n specified cities. The present book (at graduate level) aims to survey broadly combinatorial optimization problems and techniques for solving them, with associated complexity analyses. Emphasis is on variants of (NLP, but some explicitly nonlinear problems are considered. Repeated improvements of Dantzig's "simplex algorithm" are found (where an optimal solution is located at the vertices of a simplex) allow complex problems to be solved; a constructive version is given in the book.

Yet, is this algorithm efficient? The complexity of a problem may be analysed through its algorithms. For example, as the total number of worst-case operations required to execute them. Problems where complexity is bounded by a polynomial in "size of input" constitute "Class P" (and are said to have efficient algorithms), while those for which polynomial algorithm is known are "NP-complete". Examples: Euler's "Königsberg bridges problem" is in P; testing a given integer for primality is in NP. It appeared that LP was in NP until 1979, when Khachiyan's purely analytical "ellipsoid algorithm" (placing solutions in nested sequences of shrinking ellipsoids) was shown to be polynomial. The implications of this are still controversial. A problem is called NP-complete if all problems in NP are polynomially reducible to it. A crucial theorem (S. Cook, 1971) states that "deciding satisfiability" is NP-complete (where a Boolean formula is satisfiable if it is TRUE for some assignment of truth values to its primitive elements). This has allowed the identification of many NP-complete problems, and of several other subclasses of NP.

All of these matters are covered with many examples, references and exercises (no solutions given) and an elegant, if somewhat inconclusive, theory is exhibited. Several methods are given for classifying and interesting diverse problems (often graph-theoretically), and various efficient "approximate solutions" are described. All procedures are readily verifiable to formal programs for "concentric best methods". Fundamental principles are stated. Altogether, this is a stimulating book, of almost optimal clarity.

J. S. N. Elvey

J. S. N. Elvey is an independent research mathematician based in Oxford and working on a number of university-based projects.

A revised edition of H. Clark's First Course in Quantum Mechanics has been published by Van Nostrand Reinhold at £9.95. A chapter on electrons in solids has been added.

BOOKS

MATHEMATICS AND PHYSICS

Geometric recipes

Geometry: a metric approach with models by Richard S. Millman and George D. Parker

The decline of school geometry is a matter for regret. I am sure I am not the only one of my generation who went to university to read mathematics mostly because I enjoyed school geometry so much, and nothing that has replaced it in school syllabuses has the same entertainment value or scope to capture the imagination.

Also, no other part of elementary mathematics provides so good a training in the art of writing clear, airtight logical arguments. Of course, geometry has come a long way since Euclid, and as assessed by today's experts it is a highly abstract and technical subject. On any modern advanced geometry text and you are likely to find the symbols very dense on the page, and the diagrams few and far between. How does one get into this subject and find out what it is all about? Millman and Parker hope you will settle with their book, which they term as a "first rigorous course" in geometry. The danger is that, as school-leavers nowadays know little geometry, the book might be read instead as a "first course" in geometry, whereas a love of Euclidean geometry is a prerequisite.

The book is very well written, with lots of diagrams and plenty of exercises. The trouble is that it is very hard to get going, and indeed one might say that it never gets going at all. At the start, we have on "oblique geometry", which just has points and lines, and two axioms saying that two points determine a line, and every line has at least two points. A "model" for this is the ordinary Euclidean plane, and there are also non-Euclidean models, that is, spaces. Do not be misled by the title: the book does not tell you how to make pretty things with cardboard and glue.

Now, an abstract geometry is too general to have very many interesting theorems, so after a while we introduce extra axioms about distance, and later on, about angles, by page 56 we have at last reached the point where we are able to give the definition of congruence in terms of a triangle. Congruent triangles appear much later, and even more axioms are needed before we can do anything useful with them. There are then chapters on parallel lines, hyperbolic geometry, Euclidean geometry (with an all-in-one seven pages of classical results), area, and isometries.

It is necessary to be so very careful about setting up geometry? Well, unfortunately, if you are not careful, it is only too easy to go horribly wrong. Witness the well-known "proof" that every triangle is isosceles, given on page 139. After the book of seeing this for the first time, the reader ought to be much more willing to go back and study carefully those rather dull theorems about how to decide whether two given triangles are on the same or opposite sides of a given line.

Whereas Millman and Parker's book is for those who want to think carefully about the text by Ellis is for those who don't want to think at all. It is a section of this book based on a theorem, often without a modest attempt to sketch a proof, followed by several worked examples and an enigma with some exercises. I know that students of science do not want to see detailed

interacting with their surroundings. Although Rosser claims some novelty for the approach, it is similar to that pioneered by Kittel in Thermal Physics. I have found this approach popular and successful with undergraduates and now think it the best way to teach the subject at this level.

A problem intrinsic to the teaching of thermal physics is the development of a satisfactory balance between classical thermodynamics and the statistical approach. Current fashion tends to neglect the former to the student's disadvantage as illustrated in the several texts that attempt to develop the two approaches side by side. To appreciate its power, classical thermodynamics needs to be studied separately until it becomes such a familiar technology that it can be called on as readily as the ability to solve simple equations. Rosser does not attempt to expound classical thermodynamics; he gives a brief review of it in his first chapter to provide a basis for processing later statistical results and returns in a later chapter for reintegration in terms of the statistical ideas. Later in the book, where relevant, he discusses thermodynamic and statistical approaches side by side. This is particularly successful in the discussion of conditions for thermodynamic equilibrium where the characteristic features of the two approaches. It is a pity he did not do the same for fluctuations.

John Silvester

John Silvester is lecturer in mathematics at King's College, London.

Quantum states

An Introduction to Statistical Physics by W. G. V. Rosser

The essential quality of a successful textbook in an established subject-area is that it should be well-judged in relation to its intended readers. In particular, it requires careful selection of material and approach, and straightforward exposition at a level that will carry the reader forward without too much effort on his part.

Rosser's Statistical Physics is intended as a course book for undergraduates in physics and is aimed at a typical second-year standard assuming an elementary knowledge of quantum mechanics and a possible background of classical thermodynamics.

A wide variety of applications is discussed - for example, there is an excellent chapter on negative temperatures - but the author resists the temptation of playing to the gallery by dragging in every topic of modern physics matter, however remotely, to give the appearance of vitality. (Such a technique has been used to justify successive editions of certain well-known American texts, often resulting in new editions less good than their predecessors.) More advanced topics and sections dealing with peripheral subjects are indicated by asterisks, and some background material is gathered into useful appendices.

Rosser bases his approach firmly on the idea of the existence of quantum states, and classical statistical mechanics only appears briefly in relation to the classical limit of quantum results. Entropy is introduced by an isolated system, and Boltzmann and Gibbs factors appear later for systems

of particles. This is a pity because the book is the emphasis placed on the lattice properties of the function spaces considered... clear and straightforward... The book will be a useful one to have around.

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C. J. Adkins is lecturer in physics at the Cavendish Laboratory, University of Cambridge.

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